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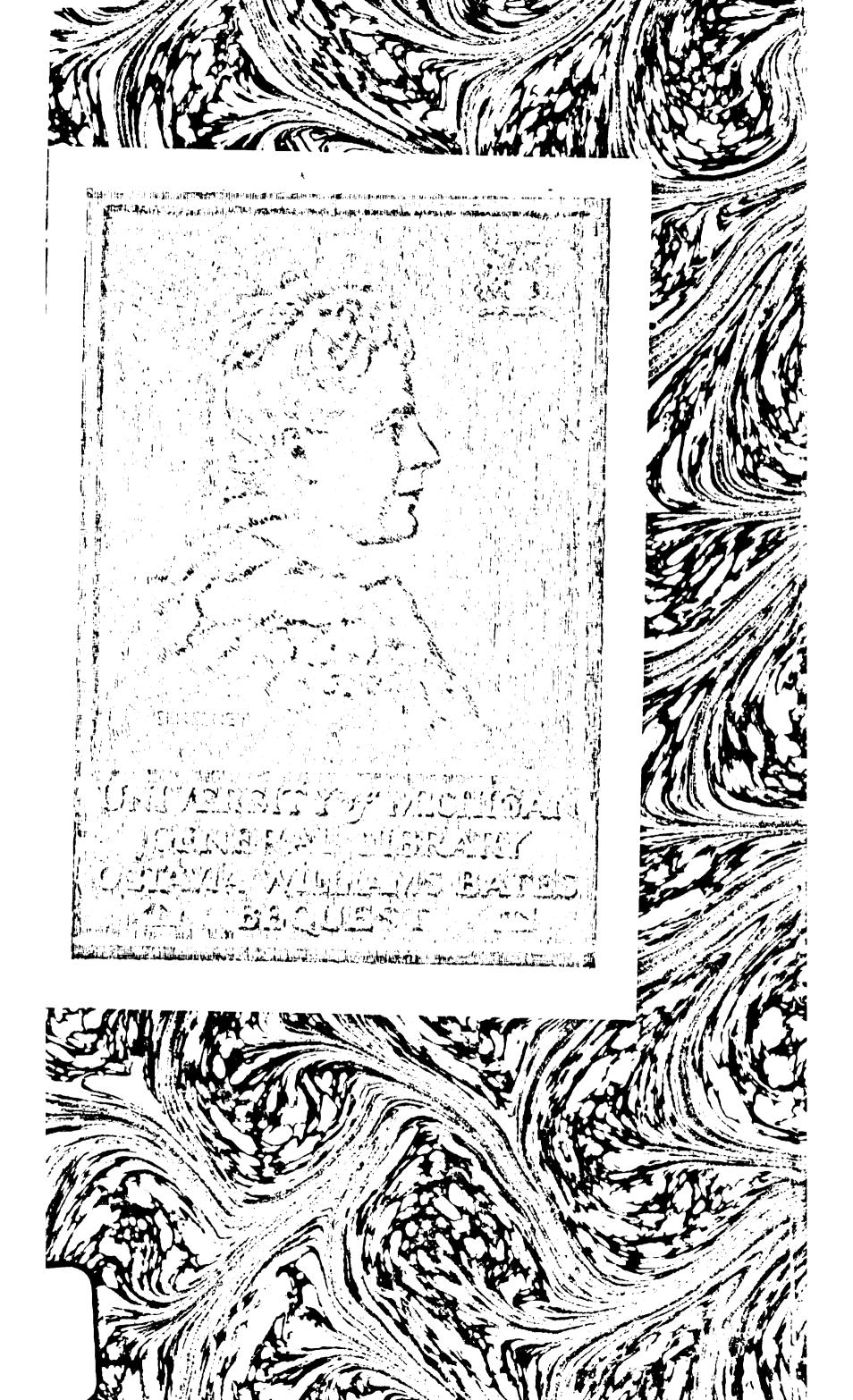
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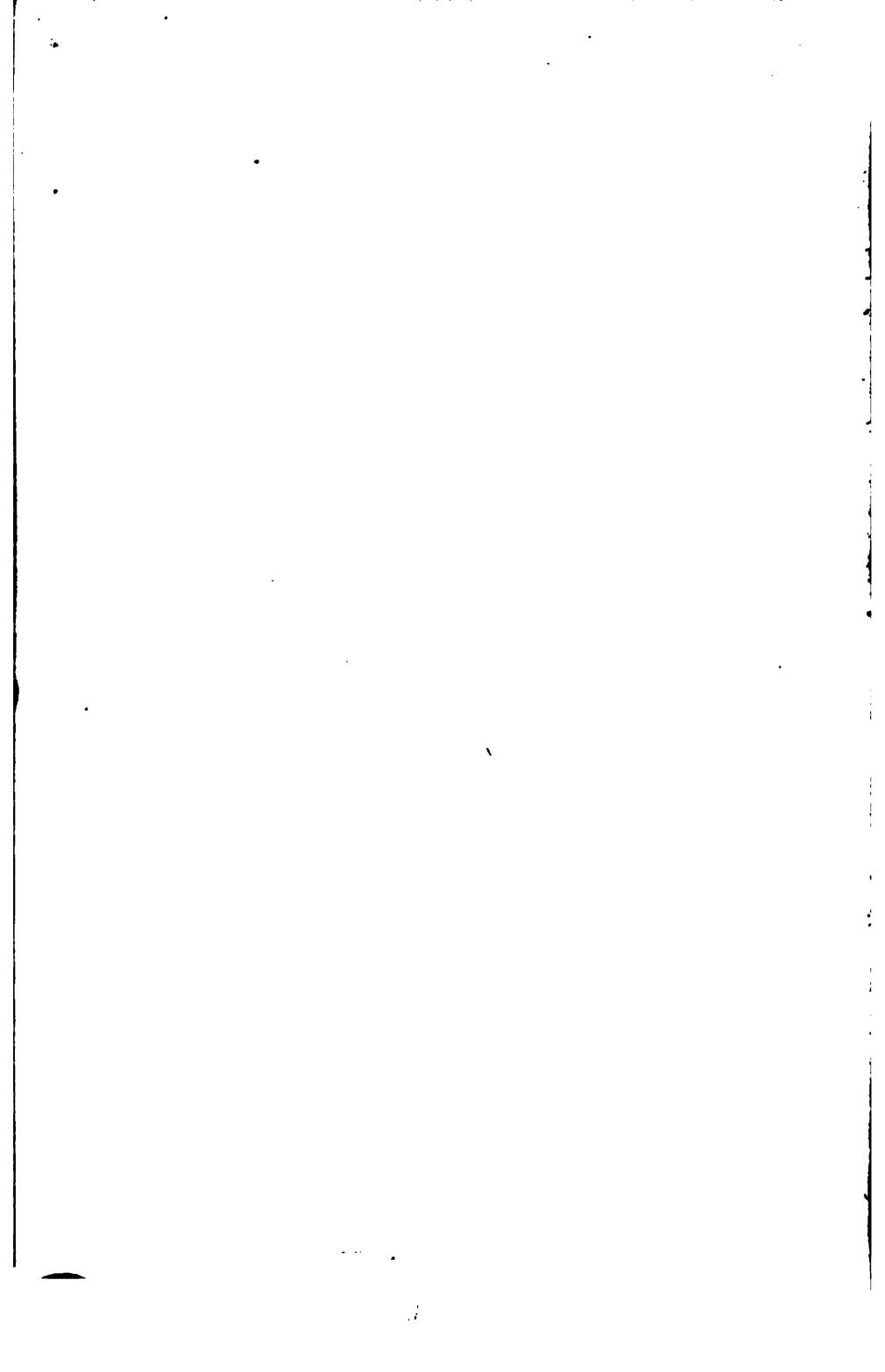
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# A DESCRIPTIVE CATALOGUE

OF

# THE ANTIQUITIES

OF

GOLD

IN THE

Museum of the Royal Krish Academy.

BY

W. R. WILDE,

VICE-PRESIDENT OF THE ROYAL IRISH ACADEMY.

Allustrated with Ninety Wood Engrabings.

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# CATALOGUE

07

# THE MUSEUM OF ANTIQUITIES

OF THE

## ROYAL IRISH ACADEMY.

CLASS V .- METALLIC MATERIALS.

ORDER V .- GOLD.

## INTRODUCTION.

ALL probability gold—in Irish, Or—was, for the reasons stated at age 354 of Vol. I., the metal with which the primitive inhabitants of reland were first acquainted. A greater number and variety of antique articles of gold have been found in this than in any other country in North-Western Eupe, from the Alps to the utmost inabited limits of Norway, or Sweden.

Records of these discoveries can be traced through all the works relating to the archæology and history of Ireland, published during the last two hundred years, and are also preserved in the unpublished Minutes, as well as the printed Proceedings and Transactions of the Academy. These antique manufactured specimens of gold for the most part consist of articles connected with personal decora-

tion, such as ornaments worn on the head,—diadems, tiaras, lunulæ, hair-plates, and ear-rings; those used for the neck, as, for example, gorgets, small torques, flattened beads, globular balls, and necklaces; for the breast, as circular plates, fibulæ, and brooches; for the limbs, as armillæ, bracelets, and fingerrings; and for the chest and waist, in the form of large torques: besides various minor trinkets and miscellaneous articles, such as bullæ; small, circular boxes; penannular-shaped articles, supposed to represent money; bracteate medals, and some other objects of undetermined use. Of all these there are good representations in the magnificent Collection of the Academy, which at present (Jan., 1862) contains as many as three hundred specimens of antique manufactured gold. These, however, are but a small portion of the gold antiquities found in Ireland, even within the past century, the great bulk of which had been melted down by jewellers, long before the institution of the Academy's Museum, about thirty-three years ago. And even during this latter period, far more articles of Irish gold have in all probability found their way to the crucible than have been anywhere preserved as objects of antiquarian or historic Besides those in the Academy, there are many noble specimens of Irish art in the Museum of Trinity College, and in the collections of private individuals, not only in Ireland, but also in England and Scotland; and the majority of the gold articles illustrative of the antiquities of the British Isles, now preserved in the British Museum, are Irish. ignorance of the finders, the fear of detection, the low antiquarian value heretofore attached to such articles, the want of a law of treasure-trove, \*-such as exists in other countries, -the smallness of the fund placed at the disposal of the Academy for the purchase of such articles, rendering it unable to purchase many valuable specimens that have been offered for sale, and

<sup>\*</sup> The Treasury Minute respecting "Treasure-trove" in Ireland only came into operation in April, 1861, and its effects have as yet been tested but to a very limited extent.

the apathy and indifference with respect to the preservation of our national antiquities which have prevailed up to a very recent period, have all tended to promote this lamentable dispersion, or destruction, of the golden treasures found beneath the surface of the soil in Ireland during more than a century and a half. How much may have been discovered prior to the commencement of that period, it is now impossible to calculate.

Unlike the weapons and implements of stone, bronze, and iron, discovered in such quantities on ancient battle-fields, or in the beds of rivers, where probably the ford was the scene of hostile strife, gold antiquities are scarcely ever found in drainage operations; neither have they been discovered in any of our Crannoges, or lacustrine habitations, the antiquities of which chiefly consist of implements employed in culinary, household, and domestic use, or personal decorations of bone, bronze, and iron. Gold articles have, for the most part, been found deep below the surface of our bogs, a portion of the peat of which had probably grown over them, where they were dropped in flight, and remained unseen to human eye, until disinterred, centuries after, by the turf-cutter; or hidden, often in quantity, in the earth in upland districts, in the vicinity of the fort or cromlech, or in the neighbourhood of the battle-field. So far as the records of such discoveries are available, it would appear that the south-western moiety of the island has yielded a greater amount of gold than the north-eastern. As yet we have but very slight authentic evidence of gold having been discovered with the remains of the dead, as so frequently occurs in other countries; and therefore we are unable to associate the knowledge of this metal, or the use of any particular style of ornament appertaining thereto, with cremation, or urn-burial, or any of the circumstances under which the relics of either the Pagan or the Christian dead of Ireland have been found. Scattered broad-cast over the country, yet abounding in particular districts, it would (without any exact knowledge being attainable upon the subject) appear that these articles were dropped, or hidden in haste or fear, and possibly at a time when the foe or the invader pressed hotly upon the heels of the fugitive.

The present goldsmiths and jewellers of Ireland bear testimony to the fact of the great quantities of antique articles of gold which have been consigned to the crucible,—some estimate that they have purchased as much as £10,000 worth.\*

By such assays as have, from time to time, been made of antique manufactured gold found in Ireland, we learn that it is slightly below the present standard of that metal in Great Britain and Portugal, and varies from 18 to 21 carats fine; and, therefore, its intrinsic value is a few shillings less per ounce than that of the mint or sovereign gold. In some of the very fine thin plates or lunulæ, it is found to be as high as 21 carats, but in no instance is it perfectly pure. is generally silver and a little copper, but of this the assaymaster takes no special note. In the native ores of Wicklow gold is always found mixed with silver and a little copper; and according to the analysis mentioned by Mr. Calvert, in his "Gold Rocks of Great Britain and Ireland," published in 1853, their proportions were as follows:—gold, 92oz. 32dwts.; silver, 6 oz. 17 dwts. 6 grs. Mr. Weaver's assay gave 225, and that of Mr. Alchorn 216 carats of pure gold.† By an assay of Wicklow gold, recently made for the author by Mr.

- \* Many of the circumstances relating to gold "finds" were brought under the notice of the Academy by the Author, on the 14th of January, 1861.
- † Weaver's Geological Relations of the East of Ireland, Trans. Geol. Soc., London, First Series, vol. v., p. 117, et seq.
- ‡ Besides the Wicklow gold-field, there are other auriferous districts in Ireland; for instance, the counties of Antrim, Tyrone, Derry, Dublin, Wexford, and Kildare. See the detailed account thereof in Mr. Calvert's "Gold Rocks," referred to above. There are several places in Ireland into the names of which the Irish word Or, gold, enters; but they do not so much indicate places in which gold was found, as localities associated with other circumstances connected with that metal. Thus, Gort-an-oir, "the field of gold," near Deargrath, in Magh Femin, derived its name from the circumstance of King Lughaidh Maccon being slain there, whilst he was bestowing gold

Twycross, the Dublin assay-master, it was I car. 1½ grs. better than standard, or 23 carats fine, the amount of silver being in the ratio of 6½ dwts. in a pound Troy. A chemical quantitative analysis of another sample, made by Mr. Scott, Secretary to the Geological Society of Dublin, was as follows:—gold, 89; silver, 8·1; iron, 2·1; and a trace of copper. From all these examinations, it would appear that the native gold of this island is either up to or above standard.

These assays and analyses of ores do not, however, present greater variety as to the amount of pure gold than is found in the antique manufactured state; but it must be remembered, that the metal of these articles may have been used for other purposes previously, and so acquired some portions of these alloys. The ring, No. 248, in Case E, is a good example of the colour of the fine native gold of Croghan, in Wicklow. The average price given for our antique golden articles by jewellers and goldsmiths for smelting purposes varies from 65 to 70 shillings per ounce. The antiquarian value is usually £4 per ounce; but this sum is occasionally increased, according to the rarity of the article, its amount of ornament, its state of preservation, or the peculiar circumstances under which it has been found.\* By quantitative analyses made by

and silver on the learned men of Erinn, A. D. 225. See Annals of the Four Masters, O'Donovan's translation. The place is now called Derrygrath, near Caher, county of Tipperary. So also Dun-an-oir, "the fort of the gold," in Kerry, and another of the same name in the Co. Cork, so called from the fact of hoards of gold having been found there. Other localities are styled golden, from the yellow colour of the clay, or from the richness of the soil, or fertility of the district.

\* Under the present Treasure-trove regulations, the finder of an article has only to bring it to the nearest police officer, from whom he will receive a receipt, by which the Government undertakes to return the article, if not required; or to give, if retained, the "full value" thereof; not merely its intrinsic or bullion value, if of metal, but its full antiquarian worth, as determined by the Committee of Antiquities of the Royal Irish Academy, to which body all such articles are submitted for award by the Lord Lieutenant.

The country is deeply indebted to Lord Talbot de Malahide for his valuable influence and assistance in procuring the Treasury Minute, from which it is to be hoped

Mr. J. W. Mallet, and already referred to at page 359 of Vol. I., the following were the proportions in eight specimens:—the quantity of gold varied from 71.48 per cent. in a fragment of a thin neck-torque, No. 200, to 96.90, in a portion of a bracelet, formed of twisted wires, No, 188, both in Case E; and the amount of silver, from 23.67 in the former, to 2.49 in the latter. In the eight examples examined, the proportion of copper varied from 4.62 to 0.12 per cent. The admixture of alloy by our early gold-workers, if such took place, beyond that found in its natural state, or acquired by frequent working, shows an extraordinary amount of metallurgic knowledge, and points to a high state of civilization in the artists by whom it was employed.\* An assay which we recently procured of a portion of a large thin lunula, No. 8, in Case A, showed it to be only 1 carat 03 grs. less than standard. It would be a matter of interest to discover whether the amount and quality of the alloy was fixed for any particular variety of ornament; but as a yet sufficiently extensive series of assays and analyses have not been made to determine this point.†

In the ancient annals and histories of Ireland, relating to the most remote historic periods, down to the fifteenth cen-

so much benefit will in future be derived, and the intent of which will, we sincerely hope, be made as public as possible by the nobility, clergy, and gentry, and all persons interested in rescuing from the smelting-pot, and preserving in our great National Collection, some of the best materials for our ancient domestic history.

\* Gold is red or yellow, according to the amount of copper or silver with which it may be alloyed. From the circumstance of "red gold" being frequently specified in our ancient MSS., it would seem to have had a special value attached to it; but whether this red ore was obtained from any particular locality, or was produced by the artificial admixture of a reddening material, is unknown at present.

† In early times the men of Leinster were called "Lagenians of the Gold," from the circumstance of the quantity of gold found in the Co. Wicklow, as already stated at p. 354 of Vol. I.; and besides the entries and references there given, the following extract from the Book of Leinster (MS., T. C. D., fol. 246 a), for which the author is indebted to the Rev. Dr. Todd, still further explains the appellation:—

"The reason why the men of Leinster are called 'Lagenians of the Gold' is this-

tury, we find more numerous references to gold than in the records of any other country in North-Western Europe. These show that gold, both in the crude and manufactured state, was in frequent use in this country in ancient times. We read of gold in bulk, or by weight, having been paid for ransom (in some instances as much as 300 ounces),\* exacted as tribute, given in barter, or for charity. Of wrought gold we have notices of torques and bracelets being worn by distinguished persons; or, in the form of rings and armillæ, being presented as the reward of merit to poets and historians. Instances of all these are numerous; but, as regards the most remarkable and pe-

because in their country gold mines were first discovered in Erin. In the forest south of the Liffey the gold was first smelted, as the poet says—

'Ucadon, the artist of Cualann,
Was the first to inhabit Dord, I assert.
It was in his inviolate, delightful place
That gold was first boiled in Erinn;
Upon his woody, sportful lawn,
Long, capacious bellows were blown
By the man of unebbing fame,
In the forests south of the Liffey.'"

That is, the plain of the Liffey, the present Wicklow gold district, from which the river takes its name.

- \* A. D. 989. When O'Melaughlin gained the battle of Dublin over the Danes, and besieged them in their citadel, now Dublin Castle, they at length yielded to his demand, and gave "an ounce of gold for every garden, to be paid on Christmas-night for ever."
- A. D. 1029. Amlaff, the Dane, when captured by Mahon O'Reagain, Lord of Bregia, paid as his ransom "twelve hundred cows, sevenscore British horses, and threescore ounces of gold, and the sword of Carlus."
- A. D. 1151. Turlough O'Brien took with him to Connaught, besides other articles, "ten ounces of gold."
- A. D. 1162. When peace was concluded between the Danes and Irish, one hundred and twenty ounces of gold "were given by the foreigner to O'Lochlainn, King of Meath;" and "fivescore ounces of gold" were paid by Diarmid O'Melaughlynn to Rory O'Conor, for Westmeath.
- A. D. 1168. Dermot Mac Murrough gave one hundred ounces of gold to Tiernan O'Rourke for his Einach, or atonement.
- A. D. 1169. Donough O'Carroll, Lord of Airghialla, died, "after bestowing three hundred ounces of gold, for the love of God, upon clerics and churches."—Annals of the Four Masters, O'Donovan's translation. Dublin: Hodges and Smith.

culiarly Irish, as well as the most valuable specimens, both intrinsically and artistically, which have been discovered, there is no mention in our accessible Annals. They, probably, belong to pre-historic times, and were lost long before the age of writing in this country. Among the most remarkable of these are the beautful diadems, coronets, and other head ornaments in the Academy's Collection.

Had the Irish monarchs or provincial kings crowns? is a question frequently asked. If they had, history is silent on the subject, and we have no records of such being used at the inauguration of kings or chieftains. There is not in Irish history an account of the ceremony of a coronation. Two golden articles, however, like caps or helmets, and which may have served as crowns, were found in Ireland during the past century. One of these, figured by Dermot O'Connor, in the introduction to his translation of Keating's "History of Ireland," published in 1723, and of which the accompanying illustration is a fac-simile,

was discovered in a bog at the Devil's Bit, in the Co. Tipperary, in 1692, and remained for some time in the possession of the Comerford family, by whom it was carried to France, but whether

Fig. 587.

and must, therefore, have been very thin and slight. Its ornamentation is undoubtedly Irish, and is identical with that on some of our very early golden articles, especially lunulæ and fibulæ, and consists of embossed circles and straight lines, some parallel, and others arranged in angles of the chevron pattern, like those seen in some of the terra-cotta urns of Pagan times.\* "Another crown of gold, similar to this,"

<sup>\*</sup> The dimensions of that article are not given, and its weight, about 5 oz., shows that it must have been very thin. In the Copenhagen Museum may be seen some

says Vallancey, writing in 1783, "was found some years ago on the estate of Mr. Stafford."—See Collectanea, Vol. IV., p. 39. Aisin is the name used by some comparatively modern Irish writers for a crown or diadem; but it is also applied to a reliquary, and is not a term of much antiquity. At what period the crown known to moderns, and consisting of a coronet more or less raised, and decorated with semicircular bands or hoops passing from one side to the other, was first introduced, has not been clearly stated by writers, although, from the shape, it would appear to have had its origin in the mural crown of classic nations. The earliest insignia of power, rank, or sovereignty, would appear to have been a bands or fillets, as shown on some of the most ancient coins The fact that for centuries prior to the Anglo-Norman invasion there was not any sole monarch of Ireland, may account for the circumstance of there being no such national regalia; while those magnificent golden diadems still preserved in the Academy's Collection, and which, probably, belonged to kings and queens in the days of the Irish pentarchy, far surpass any ornaments of the kind of a similar age discovered in North-Western Europe.\*

thin golden cup-shaped vessels, highly ornamented in the Scandinavian style of art which were found suspended in ancient tombs. See, in particular, Plate 61, Fig. 280, in Worsaae's Nordiske Oldsager, 1859. If we reverse the drawing of the so-called Irish crown given above, and place it beside one of these northern vessels, the resemblance is very striking; or, if we reverse the latter, it quite as much resembles a cap, or crown, as that given in the foregoing illustration. Banquetting vessels of the precious metals were not unknown to the early Irish. See, among other notices, the Fragments of Irish Annals, copied by Dubhaltach Mac Firbisigh, and published by the Archæological and Celtic Society, with a translation and notes by the late Dr. O'Donovan, in 1860.

\* Irish Crowns.—I am aware that the opinion expressed in the text respecting the Irish crown, at least as we now understand the term, is contrary to that asserted by O'Flaherty, in the Ogygia, and Lynch, in his Cambrensis Eversus, as well as by Ward, M'Curtin, and other writers; but as yet I have not met with any authority which describes such an article, or relates the circumstances and ceremonial of a coronation. In Scandinavia, which, next to our own country, is rich in antique gold de-

All the golden articles are arranged in six upright cases, placed in strong fire-proof safes, on the ground-floor at the eastern and western ends of the Museum.

## SPECIES V .- PERSONAL DECORATIONS.

LUNULE, or LUNETTES.—In Irish, Mind or Minn.—The most frequently discovered gold ornament—and that in which the type, both in shape, size, and style of decoration, is most decidedly fixed—is a thin crescentic, or moon-shaped plate, with the extremities formed into small, flat, circular discs, at right angles with the plane of the article, and which is now known by the name of lunula,\* or lunette, of which the following illustrations are good examples. This engraving, from No. 2, in Case A, represents one of the largest and most perfect of these ornaments. It is 9 inches across from out to out,  $5\frac{\pi}{8}$  in the clear of the hollowed part, which is not a perfect circle; and measures  $2\frac{\pi}{8}$  deep in the widest portion at top.

The ornamentation, which is very minute and elaborate, was in this, and in almost all similar specimens, evidently effected by a series of fine chisel-edge punches, the indentations made by which can in some instances be observed on the plain reverse side. The lines which surround the edges would, however, appear to have been produced by the graver. It is formed

corations, no such regalia have been discovered; but bronze circlets, diadems, and hair ornaments, for a like purpose, abound. For some account of the inauguration of the Irish Christian kings and chieftains, see O'Donovan's translation of "The Genealogies, Tribes, and Customs of Hy-Fiachrach," printed by the Irish Archeological Society, 1844, p. 425. Even when Conaire the Great was invested with the sovereignty of Ireland, at Tara, and stood upon the *Lia Fail*, which, it is said, roared under him in acknowledgment of his right, we do not read of a crown being placed on his head. The ancient romance of the *Táin Bó Cuailgne* mentions that Meadhbh, Queen of Connaught, went to battle in a chariot, with a minn or diadem on her head, but we are not given any description of the article.

\* We find the term "Lunula" first applied to these articles by the learned Pococke, then Bishop of Meath, in his article on the subject of Irish gold antiquities found in 1742, and printed in the Archeologia, vol. ii., p. 37.

of a plate of very pure gold of paper thinness, and weighs 3 oz. 4 dwts. 3 grs. This is one of the few remaining speci-

### Fig. 538. No. 2.

mens of the Academy's original Collection, and is believed to be that found near Killarney, and presented by Lord Kenmare in 1778, as described in the MS. Minute-Book of the Committee of Antiquities, vol. i., p. 50.

The Academy's Collection of lunulæ at present consists of fifteen specimens, eleven of which are complete, although a few are in fragments. They are all arranged in Case  $\triangle$ , at the eastern end of the ground-floor, and vary from  $5\frac{9}{4}$  to  $11\frac{1}{8}$  inches wide.

In the absence of any distinct reference in Irish history to these crescentic or moon-shaped ornaments, the mode in which they were worn is still a subject of discussion amongst antiquaries,—some asserting that they were hung round the neck like gorgets; while others, with more apparent reason, believe that they were placed upright on the head, with the flat, terminal plates applied behind the ears. In this latter position they would be much more ostensible and attractive than if suspended round the neck, for which there were other special decorations in the shape of gorgets and torques. In form they are identical with the nimbi on ancient carvings; and in the great majority of the oldest Byzantine pictures, similar ornaments surround the heads of the personages represented in scriptural pieces, or holy families. And, as many of these pictures are painted on panels, the glories, or nimbi, are generally plates of metal (usually silver gilt) fastened to the wood. There is a similar nimbus round the head of the chief figure in the Knockmoy fresco, described at page 316 of Vol. I. Montfaucon has figured many examples of half-moon-shaped head ornaments in use among the ancient Greeks and Romans; and in the Etruscan Collection at Berlin may be seen several bronze statuettes with this exact head-dress; in one of which (that of a female) a plait of hair is drawn across the front of the lunula, between it and the forehead.

We have no special reference to these ornaments in Irish history; but in the Vision of Adamnan\* there is a passage that bears upon such a form of head-dress, where it refers to "the exceedingly large arch above the head of the Illustrious One, in his regal chair, like the adorned helmet, or the Mind of a king." † In one of the MS. copies of Cormac's Glossary, the article referred to is thus explained:—"A mind that used to

<sup>\*</sup> See Mr. Eugene O'Curry's "Lectures on the Manuscript Materials of Ancient Irish History" for an account of this Tract, p. 424.

<sup>†</sup> Extract supplied by Mr. J. O'B. Crowe, who has also referred me to two passages in the *Leabhar na h-Uidhré*, in which the term *Mind* (pronounced *Meend*), and often spelled in "middle Irish" *Minn*, occurs, and bears a like signification to that given in the text.

be put upon the head of a soldier after the victory of conquest." In a fragment of a commentary on the Gospel of St. Mark, preserved in the University Library at Turin, and written by an Irish scribe in the eighth or ninth century, mind glosses the Latin word Diadema. In the Leabhar na h-uidhré, a MS. of the eleventh century, we read that, "once upon a time, at the great fair held at Tailten, in Meath, by the Gaels, when Diarmaid, son of Fergus Cerrbeoil, was King of Tara, the men of Eirinn were ranged upon benches, each according to his dignity or profession, or legitimacy, as had been the custom thitherto. And the women had a separate bench assigned them, along with the king's two wives, Mairenn Mael [Mairenn the Bald], and Mugain, the daughter of Concraid, son of Duach Donn, of Munster. Mugain harboured a great envy against Mairenn, because she herself was childless; and said to a satirical woman who was there, that she would give her any reward she demanded, if she would snatch the golden minn off the Queen's head. Now, Mairenn was without hair upon her head, so she always wore a queen's minn to conceal her defect. The woman then came to where Mairenn was, and importuned her for a gift. The queen said she had it not. You shall have this, then, said the satirist, pulling the Cathbarr [a helmet or decorated headdress of gold off her head. 'May God and St. Ciaran protect me against this,' said Mairenn, placing her hand upon her head; and, lo! no person in the fair had time to look at her, until a flowing head of golden hair fell down to her shoulders."\*

A few bronze lunulæ have been found in Scandinavia, and there is one plain gold specimen in the Museum of Copenhagen. The northern antiquaries consider them to have been ornaments for confining the hair.†

<sup>\*</sup> Extract supplied by Mr. O'Curry.

<sup>†</sup> The Copenhagen *Haarsmykker*, or gold lunula, figured by Vilhelm Boye in his *Oplysense Fortegnelse*, of ornaments of precious metals, in 1859, is thin, narrow, quite plain, 7½ inches broad, and greatly resembles No. 12 in the Royal Irish Academy's Collection, both in size and absence of ornament. See p. 3 of that work.

When Bishop Pococke, who first figured and described this form of gold ornament, wrote in the Archaeologia, in 1773, he said, "many such have been occasionally found in Ireland; and among these some are flat and plain; others crimpled or folded like a fan."—Vol. ii., p. 36. Simon and Vallancey also refer to similar plaited crescents; the folding, however, was evidently not a portion of the original device, but merely done by the spoiler or the finder to lessen the bulk of the article. The lunula figured by Vallancey in the fourth volume of his Collectanea, is evidently copied (although without acknowledgment) from that published by Pococke, ten years previously.

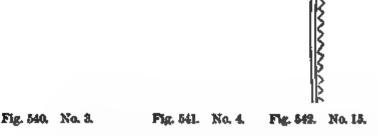
The subjoined illustration is drawn from No. 6, a rather

## Fig. 539. No. 6.

small, but very perfect and beautifully decorated specimen of lunular ornament, in which the terminal plates are oblong, instead of circular. It stands 7 inches high, measures 67

across, and is 5½ in the clear, and 1½ deep in the widest portion at top. Its weight is but 18 dwts. 2 grs. It was procured with the Dawson Collection. The inner circle, or cutout portion, probably made to fit the head of the individual for whom the lunula was originally designed, differs in each particular specimen; and in size and shape it bears no relation to the magnitude of the entire article, of which circumstance No. 5 is a good example.

By the following illustrations, which are all drawn the natural size, are presented the various forms of decoration employed by the early Irish gold-workers, and they probably followed in succession, if they were not contemporary with, the ornamentation used on the sepulchral urns. In Nos. 3, 4, 15, and 9, may be seen the rudest and simplest forms



of ornamentation, in which the lines are not very regular, and seldom quite straight or well defined, and the pattern is somewhat irregular, as figured above. The details of these specimens are given in the description of Case A. See page 17.

In figures 544, 545, and 546, from Nos. 8, 7, and 10, may be seen an advance in regularity of pattern, and greater precision of lining, especially in the last, where the pinking or angular-edged decoration is produced by a series of double lines meeting in the centre (the type of which may be seen in fig. 541, No. 4, of the foregoing cuts). In most others of this variety, the lines in the interspace run either across or perpendicularly. As already stated, at page 10, these short lines appear to have

been produced by narrow chisel-faced punches of different lengths; but in most cases the prolonged lines were evidently made with the graver.

Fig. 544. No. 8.

Fig. 545. No. 7.

Fig. 544. No. 10.

In Fig. 547, drawn from No. 11, as shown below, the checkered work has been effected with great regularity, and the pattern resembles that on some of the shield-shaped bronze pins, see Fig. 448, Vol. I., page 557.

Fig. 547. No. 11.

Fig. 448. No. 13.

In No. 13, Fig. 548, a new style of ornament has been introduced, in which the pinking runs down each side of a double line, instead of across, as in all the other specimens;

and the spaces within the outlines are filled up with a series of small circular punchings, like that in the bronze celt, No. 620, delineated at page 390, Vol. I.

Figure 549 represents a portion of the design on No. 5, the largest specimen of lunular ornament in the Collection. If brought out in colours, these various designs would have a very pleasing effect.

The foregoing collection may, in all probability, be received as the earliest specimens of lineal design in metal work which the remains of art in the British Isles afford. From the number found, it is manifest that this variety of ornament was in frequent use among the early Irish. In addition to the fifteen lunulæ in the Academy's Collection, we know of five others in

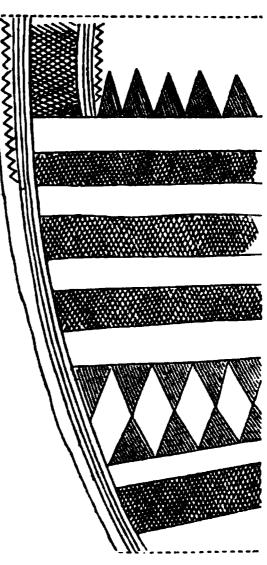


Fig. 549. No. 5.

private museums; there are three in the British Museum, which were found in Ireland; and we have reason to believe that several others are still unmelted, besides those mentioned by Simon, Pococke, Vallancey, Campbell, and other writers.

The following list comprises the details of all the lunulæ in the Collection:—

# GROUND-FLOOR; EASTERN SIDE.

Case A contains fifteen lunulæ, numbered from 1 to 15. No. 1, a small lunula, perfect in all respects, elaborately ornamented; measures 7\frac{3}{4} inches across, and is 5\frac{1}{8} wide in the clear of the inner circle; it stands about 7\frac{1}{2} inches high, and is 2\frac{3}{8} deep in the broadest portion; weight, 1 oz. 10 dwt. 11 gr.—Purchased from a dealer. No. 2, ditto, large, perfect, slightly torn at upper and inner edges; figured and described as the typical specimen of this form of ornament at p. 10. No. 3, ditto, perfect, with the exception of the ter-

minal cross plates, narrow; is 8½ broad by 8 high, 6½ in the clear, and 2 deep in the broadest portion; Wt., 2 oz. 2 dwt. Procured with the Dawson Collection. Ornament figured at p. 15. No. 4, one-half of a small lunula (completed with gold paper); measures 62 inches in extreme height; Wt., 10 dwt. 11 gr. Ornament figured at p. 15. Found with Nos. 8, 9, and 15, in hard gravel, apparently the remains of a togher or ancient road through a boggy field, in the parish of Dunfierth, barony of Carbury, and county of Kildare. Near it were found a quantity of bones of large ruminants. No. 5, the largest, and most highly ornamented specimen of lunula in the Collection; perfect, but divided into seven fragments, into which it is said to have been cut by the finder; it measures 11 inches broad, by 105 high, and is 47 deep in the widest portion. It is remarkably small in the clear, measuring but 5% inches across that portion; Wt., 4 oz. 3 dwt. 21 gr. Ornament figured at p. 17. Found near Athlone, in the county of Roscommon, and -Presented in 1842, by Earl De Grey, then Lord Lieutenant of Ireland. See Proc., vol. ii., p. 274. The square terminal plates were sold to the Academy subsequent to the presentation of the other portions. No. 6, a small, perfect, narrow lunula; figured and described at p. 14. No. 7, ditto, middle-sized, perfect; 7\frac{1}{2} by 7 inches broad, 5\frac{1}{2} in the clear, and 1\frac{1}{2} deep; Wt., loz. 9 gr. See Fig. 545, p. 16.—Purchased from a dealer. No. 8, ditto, perfect; large, broad, and rather wide at the opening; found with Nos. 4, 9, and 15. It was torn across at the widest portion, and the second part was not procured for many months after the first; when the parts were placed together, they were found to match. A small portion had been cut out of the upper edge of one fragment, to make a pig-ring, by the finder, who thought the metal was brass. This lunula has been restored, and in all probability now presents much of its original character. It measures 87 by 81 inches, is 62 wide in the clear, and 22 deep at top; Wt., 2 oz. 5 dwt. 1 gr. See Fig. 544, p. 16. No. 9, the left limb of a very small, narrow lunula, imperfect; finished out with gold paper; measures 7½ inches long, and is I broad in the widest portion; Wt., 4 dwt. 2 gr. Found with Nos. 4, 8, and 15. Ornament figured at p. 15. No. 10, a lunula, perfect, complete; broad in lateral diameter of cut-out portion, and also wide in the opening at terminal plates; resembles No. 8; measures 7\frac{1}{2} inches wide, 7\frac{1}{2} high,

19

and 13 broad in widest portion; Wt., 1 oz. 3 dwt. See Fig. 546, p. 16. Obtained with the Sirr Collection, in the Catalogue of which it is stated to have been found in the county Galway. No. 11, ditto, perfect; broad at top; 7\frac{1}{2} inches wide by 7\frac{1}{2} high, 5\frac{1}{2} in the clear of the opening, and 2½ deep in the widest portion; Wt., 1 oz. 7 dwt. 12 gr. Figured at p. 16.—Purchased from a dealer in 1852. No. 12, ditto, complete, but torn across the centre; narrow, quite unornamented; when it came into the Collection, it was crumpled or plated irregularly, as if to lessen its bulk; 7½ inches wide, and the same high, 61 in the clear, and 11 deep at the top; terminal plates oblong; Wt., 18 dwt.—Purchased from a dealer in 1853. No. 13, both limbs of a highly ornamented lunula, deficient in the centre, but completed with gold paper; differs from all the others in the character of the punched ornament, figured and described at p. 16; measures 8 inches from out to out, each way, and is 6 wide in the clear of the opening; Wt., 14 dwt. 3 gr. Analyzed by Mr. J. W. Mallet, and found to consist of gold, 88.64; silver, 11.05; copper, 0.12. See Transactions, vol. xxii., No. 4, p. 315. No. 14, a perfect, very small horse-shoe-shaped lunula, quite unornamented; very wide in the opening, where it appears to have been stretched; measures 5% inches across, and 6 high, is  $4\frac{5}{8}$  wide in the clear, and  $1\frac{1}{8}$  broad in widest portion; Wt., 16 dwt. 16 gr.—Dawson. No. 15, the left limb of an ornamented lunula, wanting the terminal cross plate; it is about 9 inches long, and measures 1 wide at the broadest portion; Wt., 7 dwt. 19 gr. Found with Nos. 4, 8, and 9. See Fig. 542, p. 15.

DIADEMS, or Tiaras—in Irish, Mind, or Minn—of thin plates of gold, semi-oval in form, and most elaborately chased and embossed, have been frequently found in Ireland. There are at present five such ornaments in the Academy's Collection, arranged in Case B, at the eastern end of the Museum; and it may with safety be asserted that, both in design and execution, they are undoubtedly the most gorgeous and magnificent specimens of antique gold work which have as yet been discovered in any part of the world. Whether they were worn as the insignia of royalty, or formed portions of the head-dresses

of Druid priests in Pagan times, is, in the present state of our knowledge, undetermined. The general design is the same in all, but differing slightly in the ornamental details in each specimen. Each diadem consists of a central crescentic plate, wide at top, and narrowing towards the ends, which are inserted into decorated circular bosses. These ornaments average eleven inches across, from out to out, and five in the clear of the open portion. In weight they vary from 4 to 16 ounces, and appear to have been placed in the erect position on the top of the head, like the lunulæ, but with the terminal decorated extremities coming down on each side, in front of, and partially covering the ears. How retained in position is uncertain. All the references to the Mind of the early Irish already cited at pages 12 and 13, in the description of the lunulæ, apply with even greater force to these diadems, of which the former were probably the precursors.

The semilunar nimbus, or oval part, is what is technically called "dished," or slightly concave posteriorly; and its ornamentation, which was evidently effected by hammering up, punching, or chasing on a mass of pitch or other yielding material, consists of a series of plain, polished, semicircular ribs, standing out in high relief, between which there are indented bands of rope-work, or rows of small circular elevations, all of the most elaborate and minute workmanship,—giving to the whole head-dress a most gorgeous effect.

Each shield-like boss is formed of a pair of thin convex plates, from two to four inches in diameter, and joined at their edges by a turn over in the posterior one, receiving and overlapping the thin edge of the anterior. In some cases, as in No. 17, this joining is further strengthened by a stout narrow rim of plain gold, which passes over and encircles the junction of both plates. The narrow terminations of the lunular portion pass in through slits in the posterior discs of the bosses, and are there fastened with gold wire twisted into a torque pattern; or, as in No. 17, with woollen thread encircled

by a narrow spire of thin gold. Each anterior boss is elegantly chased, in a different style of ornament from the nimbus. The posterior plate or disc is also ornamented, but not so elaborately as that in front.

The first article of this description of which we have a notice is that truly grand diadem figured by General Vallancey, in vol. 4 of his Collectanea de Rebus Hibernicis, published in 1784, and which he supposed to be the celebrated collar of judgment worn by the renowned Brehon, Morann, in the reign of King Fearadach Finnfeachnach, who, according to the historian Keating, reigned A. D. 14.\* It is said to have possessed the miraculous power of closing on the neck of the judge, if he pronounced an unrighteous sentence; or on that of the witness, if he swore falsely.† This so-called "Iodhan Morain" was found twelve feet deep in a bog in the county of Limerick, on the estate of W. Bury, and was in the possession of that gentleman's family in 1783. It was again figured in the Vetusta Monumenta, in 1819, when it was the property of the Earl of Charleville. See vol. v. Plate xxviii. Whether still in existence is uncertain. The engraving of it is 10\frac{3}{2} inches in diameter, and 37 across each boss. The article weighed twenty-two guineas, or 5 oz. 17 dwts. 8 gr., according to the weight of the guinea at that day,—being thus somewhat less than a third of No. 21, with which it has been frequently confounded. Vallancey also states that a similar article was found in the county of Longford, and sold for

<sup>\*</sup> A. D. 15. In this reign lived Morann Mac Maein, son of Cairbre the Cat-headed, Chief Brehon of Ireland, who possessed the celebrated Sin, or chain, called "Idh Morainn," which it is said would contract round the neck of a guilty person. See Leabhar Gabhala; also notes to the Annals of the Four Masters, by Dr. O'Donovan, who says this chain is mentioned in several commentaries on the Brehon Laws.

<sup>†</sup> To the Gearr Bearaigh, or short crozier of St. Barry, still in the possession of the O'Hanley family, was attributed the like property; and it was placed round the neck, when used in swearing, in the counties of Roscommon and Longford, within the memory of the writer. See the author's Description of the Mias-Tighearnain, in the Trans. R. I. A., Vol. xxi., Part ii.

twenty-six guineas. Among the Irish articles in the Collection of Trinity College, there is a splendidly ornamented boss,  $4\frac{\pi}{6}$  inches wide, manifestly not belonging to any of those articles now known. (See a drawing thereof in Table 52 of the Portfolio of the Museum, and a cast of it in the Comparative Collection.) In 1749, a circular boss, 10 inches in diameter, with a portion of a fluted diadem attached to it by gold twist, was found in the bog of Cullen, county of Tipperary. We have thus an account of no less than ten golden diadems, including the five perfect specimens, and a separate boss, now in the possession of the Royal Irish Academy.

The three following woodcuts, Figs. 550, 551, and 552,

Fig. 550. No. 21.

afford typical illustrations of these diadems; and Figs. 553,

<sup>\*</sup> See the Rev. Mr. Armstrong's communication to Governor Pownall, in the Archmologia, Vol. iii., p. 868, for an account of that and all the other gold articles discovered in Cullen Bog, from June, 1781, to the year 1771.

<sup>†</sup> In vol. iii. of the Collectones Antique of Mr. C. Roach Smith, the late Crof-

554, and 555, represent the most remarkable forms of decoration on their lateral ornamented bosses. No. 21, Fig. 550, is the largest and most beautiful head-dress in the Collection. The gold of which it is composed is very red; and in style of ornament and character of boss, as well as in the manner of fastening, this article differs somewhat from the others. The arched or lunated portion consists of three elevated rolls, with rows of conical studs on each, four on the upper, and three on each of the two others. A very minute rope-shaped fillet occupies the sulci between each elevation. The edges, both externally and internally, are turned over stout twisted gold wires of the torque pattern. The narrow extremities terminate in strong and rather plain bosses, to the posterior plates of which they are fastened; not by wires or gold threads, as in each of the other specimens, but by the plates being cut in several places, and turned back upon the inside of the disc, and further strengthened by stout bands of gold bent round them. This joining, although firmly secured, does not, however, appear to have been soldered, except at one or two points. discs are circular, and 2½ inches wide; the posterior one is plain, smooth, massive, and concave; the anterior is flat, and decorated like the arched portion with two rows of small nail-headed elevations, surrounding a central umbo with a double edging. The goldsmith, in making this article, apparently first fastened the extremity of the arch to the posterior disc in the manner described above, and then attached to it the flat anterior plate by the overlapping of its edge. This ornament, which is quite complete, though fractured in two places, weighs altogether 16 oz. 10 dwts. 13 grs.; it stands 111 inches high, the same across, is 5 in the clear of the

ton Croker has figured a circular gold plate, embossed like the disc of a diadem, and which covered a similar article in copper. It was found in the county Cork; and if not a portion of a fibula, such as I have referred to at p. 557, Vol. I., it must have been the anterior plate of the lateral boss of a diadem.

opening, and 41 deep at top, but narrows to 2 inches at each extremity. It was procured with the Sirr Collection, and is said to have been found in the county Clare.

No. 18, Fig. 551, here shown in perspective, is slightly defective at the upper edge; it was in two portions when presented for sale in 1856, and in mending, it has been slightly

### Fig. 551. No. 18.

contracted in the inner circle. It stands 8½ inches high, measures 10 wide, is 4½ across the open part, 4½ deep in the broadest portion at top, and narrows to 2 at each extremity. It is formed of a very thin plate of gold, and weighs only 3 oz. 9 dwt. 23 gr. The ornamentation consists of eleven plain raised ribs, with twelve roped bars between. The edges are strengthened by a narrow hem or turn over of the metal. A torque wire of two strands, apparently the remains of its fastening to one of the lateral bosses, passes through a number of holes in one end. This article, which

was found at Tory Hill, parish of Croom, county of Limerick, was purchased from a dealer.

No. 20, one of the handsomest and most perfect diadems in the Museum, formed of reddish gold, is here represented by Fig. 552. Its ornament consists of five plain, broad, ele-

### Fig. 552. No. 30.

vated bands, between which are four large funiform decorations. A narrow roped fillet occupies the inner edge, and a double and more elevated one, the outer. Portions of both posterior discs of the terminal bosses, with radiating grooved lines, still remain attached to the ends of the arch. We also possess one of the anterior discs, shown below by Fig. 553. The entire article weighs 7 oz. 8 dwts. 1 gr.; it measures 10\frac{3}{4} inches high, is 10\frac{1}{4} wide, 4\frac{3}{4} in the clear, 4\frac{3}{4} deep at top, and 2\frac{1}{4} at each narrow end. The remarkably thin posterior discs are still attached by gold-wire threads to the plain ends of the arched or lunated portion, which pass into them,

as shown in the foregoing cut. This diadem was procured with the Dawson Collection.\*

The annexed illustration, drawn half-size, shows the remaining anterior disc of No. 20, which weighs but 4 dwt. 23 gr.

It is flat, and composed of a very thin plate, most elaborately tooled, and hammered up into a high central umbo, surrounded by nine cones, each encircled with a series of minutely raised lines of the most delicate tracery. A transversely decorated bur or fillet surpounds the edge, and another of a like description encircles the central elevation.

Figure 554, also drawn half-size from the large scutiform anterior disc of one of the bosses of No. 17, is most curiously

and elaborately decorated with two rows of conical stude, surrounding the central umbo, each row enclosed within a double raised fillet, resembling twisted wire. The umbo itself is encircled by a series of minutely raised lines, from which it is separated by another torqueshaped fillet. This exceedingly thin convex plate is attached

Fig. 854. No. 17.

to the posterior disc by a turn over of the latter, and the union is rendered more secure by a narrow hoop of gold, which overlaps the marginal joining, and strengthens the whole;

Now that a taste has sprung up for personal decorations of the same pattern as the ancient Irish jewellery, it is matter of surprise that head-dresses similar to our ancient Minds have not been introduced.

the ends of the hoop are not soldered at the point of junction. The annexed cut, Figure 555, is a back view of the posterior

shows the most highly decorated example of that portion of the Mind in the Collection, as also the manner in which the termination of the lunated part passes into the transverse slit, where it is fastened above and below the line of junction. The character and design of the ornament is of a piece with that

Fig. 555. No. 17.

employed in the arch and the anterior disc, but the stude and intervening rope-work are more minute. Where the end of the diadem overlapped and concealed a portion of the posterior plate, the latter is plain, showing that even in these early days of art, labour was economized. A broad funiform band margins the transverse slit for the reception of the end of the arch, which is there decorated with a row of small nail-headed projections, while the other ornaments of this portion, as seen from the obverse, are indented. Above the line where the end of the plate passes into the boss, may be seen three perpendicular, and below it two longitudinal stitches. Some of these sewings are effected by slight square wire; but in others the fastenings are composed of fine woollen thread, round which is twisted spirally a thin flat strip of gold, as already described. That is in all probability the oldest specimen of woollen cordage now in existence in Ireland, and very likely dates from a period anterior to the knowledge of either silk, hemp, or flax, in this country. To the lower concave edge of the arch is attached, by a staple, a small oval ring, evidently for the purpose of fastening it to the head; but neither in these fastenings, nor in any other part of this ornament, can be perceived the slightest trace of soldering; and it may fairly be presumed that,

if that art was known to the fabricator, it would have been employed, instead of the wire-sewing already described. The other termination of the arch is attached to the posterior disc of the boss, by no less than eleven stitches.

The diadem, No. 17, to which these bosses belong, is very perfect, and most elaborately chased; it weighs only 4 oz. 6 dwts. 2 grs.; and measures 10½ inches across the widest portion, 5 in the clear of the open part; is 3½ deep at top, and 3 at each extremity. The plate is thin, and the ornamentation is formed of four plain elevated narrow ribs, between each of which is an embossed fillet, consisting of two rows of

raised studs, with three coils of rope-work between them, as seen in this cut. There is only one row of studs, and one rope-

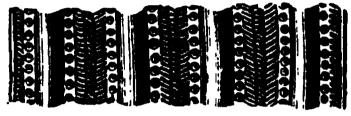


Fig. 556. No. 17.

like fillet at each edge, which is turned in all round, to remove the sharpness, and strengthen the plate. It was found in 1836, lying on the gravel, four feet deep, beneath the surface of a turf bog, on the lands of Burrisnoe, to the eastern side of Benduff Mountain, county of Tipperary, and was procured by the Academy along with the Dawson Collection.

The following detailed list enumerates all the articles of this description in the Museum:—

Case B contains five golden diadems, and a fragment of a sixth, numbered from 16 to 21. No. 16 is a splendid golden diadem, of a semilunar form, perfect, with the exception of the boss on the right side; it is highly ornamented, with seven plain raised ribs, and eight indented bars, each bar consisting of three rows, the oblique roping of which is so regular as to appear to have been effected by machinery. It is semi-ovoid in form, and composed of a very thin plate of gold, but with the edges overlapping, to give it stability. Each narrow extremity ends in a plain, very thin plate, which passes through a slit in the back disc of the terminal boss on each side. The arch is slightly dished, and measures 10½ inches from out to out of the lateral diameter, and is  $5\frac{1}{2}$  in the clear of the opening. It is

41 deep at the top, and 21 at each boss. There is only one anterior boss remaining, that on the left side. It is highly ornamented, like a shield, with a central conical umbo, and fourteen minor elevations, surrounded by six circles. It is of still thinner gold than the body of the ornament, and measures 27 inches across. A series of small conical projections surround the edge, within which there is a double funiform elevation, similar to that in the diadem. Internal to that line there are fourteen cones, as stated above. Still, within these is a double twisted elevation, and yet more towards the centre, a series of oblique radiating raised lines; then a double rope, then five raised circular lines, like those round the umbo, within which is a single rope, encircling the central elevation. plate was fastened upon the posterior disc by an overlapment of the latter, as in the joining of modern tin-ware. It weighs 3 dwt. 22 gr.: and measures 23 inches across; the whole diadem now weighs 4 oz. 5 dwt. 5 gr.

The posterior concave members of each boss remain in situ, and are decorated with five rows of circular conical knobs, smaller than those on the anterior side; each row divided by a double roping, It is cut transversely, to admit the small end of the lunular portion of the diadem, which then passes down into the hollow between the two discs. This slit is margined by a double roping, to correspond with the cross roping embossed on the reverse side of the small end of the diadem, precisely like Figure 555, from which it is difficult to distinguish it, except by the size. The upper portion of this posterior plate, which is concealed by the diadem, is plain; thus we see that labour was economized in early times. The lunular portion was fastened to the boss by square wire, twisted into the torque pattern, three above in line with the transverse funiform decoration, and two below the transverse cut in the boss. This ornament was found in a bog, one spade's depth under the surface, in the parish of Ardcroney, near Nenagh, county of Tipperary. No. 17, another diadem of the same size as the foregoing, but with less elevated chasing, and having larger bosses; it is slightly imperfect on left outer edge; plate thinner than that in No. 16; both anterior discs of bosses remain, right posterior disc broken; both sides of the left boss have been figured at pp. 26, 27; the diadem itself is described at length in the text, and a portion figured at p. 28. No, 18, the golden diadem, figured and described at p. 24. No 19, the anterior disc of the lateral boss of a diadem, much larger than any other in the Collection; it is more convex than usual in such articles; measures  $4\frac{1}{2}$  inches across, and weighs 16 dwt. 2 gr. The decoration is ruder than in any of the other specimens, and consists of a number of minute conical projections, with a donble circle externally. It formed a portion of the old Collection of the Academy. See Mallet's Analysis:—No. 6, gold, 81·10; silver, 12·18; copper, 5·94; lead, 0·28. Trans. R. I. A., vol. xxii., p. 315. No. 20, the splendid gold diadem, figured and described at pp. 25, 26. No. 21, the largest and heaviest gold diadem in the Collection; it is figured and described at pp. 22.

GORGETS, or NECK-COLLARS.—While the precise use and mode of wearing the lunulæ, or moon-shaped plates, are questions still open to discussion, no doubt can exist as to the object of the articles termed "Gorgets;" for an exactly similar piece of decorative defence was worn by modern soldiers within the last few years.\* Indeed, it may be fairly asserted that no article of ancient personal decoration has descended to our own time with less alteration than this; and even when no longer considered useful for defence, small figurative or emblematic gorgets, of gilt brass, were suspended by ribbons (furnished with rosettes) from the necks of infantry officers, of which there is a specimen in the Comparative Collection of the Academy's Museum. It is only within the last few years that any of those ancient gold gorgets have been discovered; and as yet the only specimens to be seen in the public antiquarian museums of Europe are those in the Irish Academy's Collection. † They were all found together, in March, 1854, with a vast number of golden antiquities, in

<sup>\*</sup> We have no ancient Irish name that specially applies to gorget. *Muin-tore*, or neck-torque, was probably a generic term for several varieties of twisted neck ornaments, but is certainly not applicable to the smooth, curved gorget.

<sup>†</sup> A sixth gorget, weighing 4 oz. 13 dwt., was also found; it was purchased by the late Lord Londesborough.

making the Limerick and Ennis Railway, through the townland of Mooghaun North, in the parish of Tomfinlough, near Quin, and not far from Newmarket-on-Fergus, in the county of Clare, and form a part of the great "Clare Find," a portion of which was purchased by means of a Government grant and subscriptions from some members of the Academy. It is said that no less than £3000 worth of gold articles were discovered on that occasion. Besides these gorgets, there were found an immense number of rings and armillæ, several fibulæ, and some small torques, the whole placed together in a small stone chamber made for their reception, immediately beneath the surface, in dry alluvial soil.

The Rev. Dr. Todd, then Secretary to the Academy, brought all the circumstances of this most remarkable discovery under the notice of the stated meeting, held on the 26th of June following, and exhibited five gorgets, two necktorques, two unwrought ingots, and no less than one hundred and thirty-seven rings and armillæ; the total weight of which was 174 oz. 11 dwt. 7 grs. It is to be lamented that that most valuable communication has not been preserved in our Proceedings; but the author having generously placed his MS. notes at our disposal, we are here enabled to supply a more authentic account of this discovery than has yet appeared. There was a small mound of earth over the little stone chamber in which the gold ornaments were found: the rings and torques were twisted together, and covered on the outside by the gorgets. This hoard, which was evidently hidden in haste, was manifestly the spoil of a battle, foray, or plundering; but the depositors never returned for it. The locality is not more than a quarter of a mile from one of the largest earthen forts in Ireland, and lies north-east of the demesne of Dromoland, the property of Lord Inchiquin, a most remarkable fort,\* which was, in all probability, the

<sup>\*</sup> See Ordnance Map of Clare, sheet 42. The fort is not named on the map, but a writer in the "Munster News" of the day stated that it was called Laungagh.

theatre of many a conflict in early times. This portion of the ancient territory of Thomond was the scene of a great struggle between the Norsemen and the native clans of the O'Briens. The ancient tract on the Wars of the Gail (i. e. the Danes) with the Gaedhil, or Irish, now in process of publication, contains several notices of these conflicts, of which the following is a summary:—

"Mahon, brother of Brian, makes peace with the Danes. But Brian, son of Kennedy [afterwards called Brian Boroihme] was not pleased with this peace, but prepared to inflict all the evils in his power on the Danes; and although all others sat idle, Brian would not. He retired with vigorous youths of the Dalcais into the woods and wildernesses of Thomond, and immediately commenced hostilities against the They erected huts and encampments in the forests and solitudes of Hi Bloid\* [the very district in which these gold ornaments were found], and laid waste all between Loch Derg and the River Fergus, and from Echtge to Tradree.† The Danes enclosed the whole of Tradree with a wall of fortification; but Brian continued to harass them, and to cut them off in small parties without number, at the same time that he was so reduced himself that at one time he had but fifteen youths to follow him." Soon afterwards Brian and Mahon gained a great battle over the Danes at Laigh, in Tradree. "They plundered Finn Inis, and Inis Mor, and Inis da Dhromin, and the other islands of the river, and every place that held the wives and children of the Danes; and

<sup>\* &</sup>quot;The descendants of Blod, the eldest son of Cas, ancestor of the O'Briens, inhabited the region from them called *Hy-mBloid*. The territory is indicated . . in the east of the county of Clare, and diocese of Killaloe."—See Historical Memoir of the O'Briens, by John O'Donoghue, A. M. Dublin, 1860: p. 10 and note.

<sup>†</sup> Echtge, now Slieve Aughty, on the confines of Clare and Galway. Tradree, or Tradraighe, is the name of a deanery in Clare, comprising nine parishes, among which Tomfinlough, in which the gold was found, is one, as also the island of Inisda-dhrom, in the Shannon, at the mouth of the River Fergus. See Annals of the Four Masters, O'Donovan's translation, and notes.

there was much of gold and other wealth in these islands and fortifications."—MS. in Trin. Coll., H. 2, 17, pp. 34, 47, 61.

It is, therefore, not improbable that this hoard of gold, the spoils of the Irish by the Danes, who are frequently described by our ancient writers as "Exactors of Rings," may have been deposited by that people before their final rout by the victor of Clontarf. Had it been hidden by the Irish, the knowledge of the circumstance would, most likely, have been preserved, and it would not have remained unsought for or undiscovered for upwards of eight centuries."

The British Museum and several private Collections have been enriched from that "Find;" but there is reason to fear that a large portion of it found its way to the smelting pot.

The five gorgets have been arranged at the top of Case C.

# Fig. 567. No. 36.

No. 25, figured above, is the largest and most perfect. It measures 21 inches along its convex margin, is 74 across the

For further notices of the "Clare find," see Proc. R. I. A., Vol. vi., pp. 118 and
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widest part, and 5½ in the clear. It is formed of a semi-oval stout plate of gold, 2½ inches wide, measured over the broadest part of the convexity, and is ¾ of an inch in the opening between the terminal cups. These latter do not present parallel faces; but when the article is laid on the flat, each looks backwards, and slightly downwards. Their necks are decorated in front with a highly engraved pattern, consisting of encircling fillets above and below a herring-bone pattern, as

shown in the annexed cut. It weighs 7 oz. 3 dwt. 12 gr. As, owing to its shape and material, it is very flexible, it can be easily passed round the neck by bringing one end forwards and pressing the other backwards.

The discovery of these undoubted gorgets or neck collars strengthens our belief that the lunulæ were intended for the head, as already stated at page 12. The foregoing description



Fig. 558. No. 25.

of No. 25 applies to the other four, the details of which are given in the description of Case D, at page 41. Without any exact knowledge on the subject of the ornaments and costume of the Danes, at the time of their occupation of some of our cities, it is impossible to form an opinion as to the character of the "collar of gold which Malachy won from the proud invader;" but it is worthy of remark that the principal articles of gold in the Copenhagen Museum are massive collars, round in section, some hinged behind, and overlapping in front.

Beads and Necklaces—in Irish, Fiam muinche—either of gold alone or gold and amber, were not uncommon in Ireland. The most remarkable and unique objects of this description

124; also an article by the Rev. James Graves, in the Kilkenny Archeological Journal, Vol. iii., p. 181; and the late Mr. Crofton Croker's paper in the Collectanea Antiqua, p. 280; together with the newspapers of the period.

All the articles from the Clare find now in the Collection of the Academy were procured through the instrumentality of the Rev. Doctor Todd, Charles Haliday, Feq., and Christopher Fleming, M. D.

are the eleven hollow balls, or large globular beads, which were found by a peasant in a potatoe field near Carrick-on-Shannon, in the county of Leitrim, in 1834, and of which there are now seven in the Collection, arranged in Case C, and numbered from 28 onwards. This illustration represents these

#### Fig. 559.

objects in their entirety, as they originally came into the possession of Mr. West, of this city, before they were distributed amongst several collections prior to the formation of the Aca-

demy's Museum; and the annexed figure, drawn from No. 31, represents one of these articles separately. Each ball is slightly compressed laterally, and is formed of two hemispheres of very thin gold plate, so made as to join with the greatest accuracy, and to overlap for about the sixteenth of an inch. They

Fig. 500. No. 31.

were then soldered at the extreme edges, so slightly, yet intimately, that the uniting material can only be discovered with the aid of a lens. On the flattened side of each of these balls there is an aperture somewhat less than a quarter of an inch wide, with an everted lip, as if to prevent fraying of the band on which they were strung. Those seven hollow balls now in the Collection vary in size from 27 to 37 inches in the great-

est diameter, and in weight from 1 oz. 8 dwt. 20 gr., as in the least, No. 28, to No. 31A, which is 2 oz. 7 dwt. 7 gr. The entire set weighed 20 oz. 8 dwt. Several are now much battered, but when found it is said that they were smooth and perfect. It is apparent that a necklace formed of these eleven balls must have descended as low as the breast. Research does not aid our inquiries as to what class they were worn by, whether chieftain, Druid-priest, or king, but their ostensible use was that of a necklace of the largest and most gorgeous description.

One of the most elegant forms of ancient Irish gold ornament is that here represented, the actual size, both on the

flat and in section, and which may be termed the Double Conical Bead. It is formed of two very thin conical plates, most elaborately decorated with a series of minute concentric depressions and elevan



Fig. 561. No. 49.

Fig. 142. No. 49.

tions, and open at one side, but for what purpose it is now difficult to determine.† In each of these plates there is a large central aperture, through which passed a cylindrical pipe, ‡ inch long and ‡ wide, punched all over from within outwards, and which was fastened to the conical sides by an interlapping edge, as shown by Fig. 562. The outer approximated edges of the discs were encircled with a stout plain rim, or overlapping hoop, which held them together, like that seen in the boss of the disdem, No.17, described at page 26. It

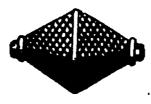
<sup>\*</sup> See The Dublin Penny Journal, Vol. iii., p 144.

<sup>†</sup> The late Crofton Croker, in his learned article on Irish gold, in C. Roach Smith's Collectanea Antiqua, Vol. ili., p. 136, supposed them to be Bulke.

weighs 8 dwt. 2 gr. There are the remains of four such beads of different sizes in Case C, Nos. 48 to 51, the largest of which, No. 49, is that figured on the opposite page.\* Nos. 41 to 47, in the same Case, are a row of cylindrical Beads, corresponding in every respect with the tube or ferule still remaining in the double cylindrical ornament just alluded to; and, although they were found with the amber necklace discovered at Cruttenclough, near Castlecomer, county of Kilkenny, and now in the Academy's Collection (see Rail-case E), they were probably originally bushings or centre tubes for conical beads.

Two other forms of small conical beads are here shown, the natural size. Fig. 563 represents a small embossed bead,

composed of two cones joined in the centre: it forms a portion of a necklace of seven similar hollow beads, numbered from





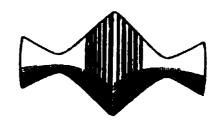


Fig. 564. No. 52.

34 to 40, in Case C, each weighing from 9 to 11 grains. Fig. 564 is drawn from one of a series of seven similar double beads, numbered from 52 to 58, each consisting of two chalice-shaped portions, joined in the centre, decorated with transverse embossed lines; and having small trumpet-mouthed extremities. The average weight of each bead is 1 dwt. 8 gr. The necklace to which this article belongs was procured with the Sirr Collection; and No. 35 forms a part of that which was found at Cruttenclough, referred to above. This latter belonged to Dean Dawson.

EAR-RINGS—in Irish, Unasca—are well represented by the

• In the collection of drawings now in my custody, made by G. Beranger at the end of the last century, and to which reference has been made at p. 489, Vol, I., there is a coloured illustration of a large and very perfect double conical bead of this description, which measures  $2\frac{1}{4}$  inches in diameter. Except in size, the only difference between it and that figured above consists in a small double-roped ornament along the parallel edges of the transverse joining of the side plates.

gold articles in the Collection, and illustrated by the three following figures, drawn the actual size, from Nos. 62, 63, and 66, in Case C. Each ring is disunited, but was probably closed after having been passed through a hole in the lobe of the auricle. No. 62 is a close funiform, or torque-shaped earning, one of four similar in pattern, with small plain ends.



Fig. 565. No. 62.



Fig. 50

It weighs 3 dwt. 4 gr. No. 63, Fig. 566, is a very beautiful massive ear-ring of the torque pattern, formed of four flat narrow fillets, joined at their inner edges, like the great Tara torque, No. 192, in Case E. These twisted bands terminate in circular collars, from which the plain round ends proceed. It weighs 12 dwt. 9 gr., and forms one of a pair said to have been found near Castlerea, county of Roscommon, and procured with the Sirr Collection. Figure 567, No. 66, is of a totally different character from either of the foregoing, and consists of a number of transverse rolls or elevations, with a wheel-like ornament in the centre. It weighs 9 dwt. 4 gr.

Fig. 566. No. 63,

LONGITUDINAL GOLD PLATES,—plain and decorated, some long and narrow, as No. 82, Fig. 568; and others short and broad, as No. 75, Fig. 569; or with central loops, as No. 73, Fig. 570,—have been frequently found in Ireland. There are nine such articles arranged beneath the balls and beads in Case C, illustrative examples of which are afforded by the subjoined engravings. Their use has not with certainty been determined; but in all likelihood the elongated specimens

were employed as fillets or forehead-bands, for confining the hair, and the shorter ones may have hung over the brow. Figure 568 represents, the actual size, a portion of No. 82, which is 8½ inches long. The ornament, which is in relief, and would appear to have been struck with a die or stamp, is more of the Scandinavian than the Irish pattern. The plate

## Fig. 548. No. 63.

is very thin, and weighs only 5 dwt. It was found at Lambay Island, in Dublin Bay; and from the statement of a sword being found along with it, it has been conjectured that it formed part of the decoration of that weapon; but the account afforded by the finder is not very clear as to the circumstance of the discovery.

Figure 569, drawn one-half size from No. 75, shows a

thin decorated plate, one of four similar articles, each with ten transverse, raised, triple bars; and which were either worn in the hair, on the forehead, or



Fig. 589. No. 75.

attached to the dress. It weighs 1 dwt. 17 gr. Figure 570, No. 73, is a plain thin plate of gold, with a hook at top, probably for a like purpose. It weighs 3 dwt. 17 gr. There are two such plates in the Collection.\* See details of Case C, at page 44.

<sup>•</sup> Golden filets, or hair-bands, were not uncommon in Ireland; one of the most beautiful is that recently described by Mr. Windele in the Ulster Journal of Archmology, Vol. ix., part 88, for January, 1861. See an account of another similar hairband in the Kilkenny and South-East of Ireland Archmological Journal, vol. i., No. 8, p. 361.

No. 75, Fig. 569, together with Nos. 71 and 72, was

found during the arterial drainage operations, in 1852, in the bed of a stream in the townland of Belleville, parish of Kilmore, county of Cavan,

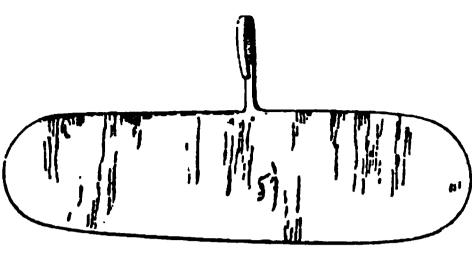


Fig. 570. No. 73.

and were-Presented by the Board of Works.

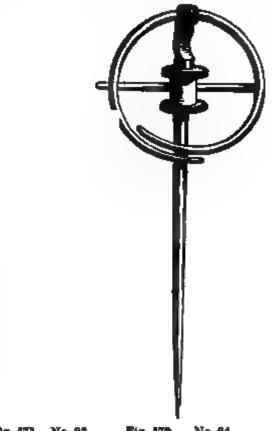
BREAST-PINS and BROOCHES of gold—in Irish, Dealg Oir—are rare, especially in comparison with those of bronze and silver, and were probably not in use in those early days when the diadems, hair-plates, lunulæ, torques, gorgets, necklaces, and double-headed mammillary fibulæ, were the chief personal metallic ornaments. But some of the most elaborately wrought bronze, silver, and findyuin, or white metal, brooches, and forehead decorations, were partially covered with plates of gold, as already alluded to at pages 354 and 557, Vol. I. These gold-plated articles will be again referred to in the description of the articles of silver. A gold ringfibula of the bronze and silver pattern, and styled the "Dalriada Brooch," was found some years ago in the neighbourhood of Coleraine, county of Antrim, and figured and described in the Ulster Journal of Archæology, vol. iv., page 1. In workmanship and style of art it is, however, much inferior to many of our bronze and silver ring-brooches, and is probably of as recent a date as the twelfth century.\*

• See Proc. R. I. A., vol. vi., p. 802. Another golden ring-brooch, found in Ireland, has been described in the Archeological Journal, vol. xi., p. 285. For the Irish names of breast-pins and brooches, see p. 554, Vol. I. of this Catalogue.

When the poet Aithirne visited the county of Carlow, as related in the Forbais Edair, he procured a beautiful gold brooch, and carried it with him to Ulster. See the curious account of this antique in Mr. O'Curry's "Lectures," p. 268, already referred to at p. 12. In 1801, the Royal Dublin Society purchased an antique gold fibula, which was found in the county of Fermanagh. See Proc. of that body.

The few breast-pins belonging to the Royal Irish Academy, arranged in Case G, from Nos. 83 to 88, are compara-

They contively modern. sist of small ring-brooches, three of which bear inscriptions, and the two very light, elegant pins shown, the exact size, by the accompanying illustrations. The shorter, No. 83, Fig. 571, has a double torque-pattern ring; and the long pin of No. 84, Fig. 572, has a drill-shaped ferule and cross-bar at the upper part. Its ring is plain and unclosed. The former article weighs 2 dwt. 12 gr.; and the latter 3 dwt. 14 gr.



The following is a detailed Fig. 871. No. 88. Fig. 873 No. 8

list of the seventy-eight articles attached to Case O:-

Case C, on the eastern ground-floor, contains a series of decorative articles - Gorgets, Balls, Beads, Necklaces, Forehead-bands, Plates, Pins, Brooches, Ear-rings, and Armille-numbered from 22 to 99. No. 22 is a small gold gorget, slightly imperfect at the extremities, flattened, and much battered; has a hole, apparently ancient, in one end; measures along its convex edge 16% inches; weight, 2 oz. 4 dwt. 19 gr.; found, with Nos. 23 to 27, and many other specimens of antique manufactured gold, among the great "Clare Find," described at p. 31. No. 23, a perfect gorget, of medium size, nearly circular, narrow, slightly cracked on inner edge; terminations small, flat, and undecorated; 61 inches wide, 5 in the clear, 1 across broadest part of turned-in edges, and } between the terminal enlargements; Wt. 4 oz. 4 dwt. 4 gr. No. 24, a small, perfect gorget, thin, broad, and flat, partially bent and disfigured; terminations button-shaped; measures 51 inches across, 4 in the clear, and 1 between ends; Wt. 2 oz. 8 dwt. 17 gr. No. 25, the largest and

most perfect gorget in the Collection, figured and described as the type of its class at pp. 33 and 34. No. 26, a very perfect narrow gorget, more oval than the others; terminations slightly decorated with the graver, but ornament rude and irregular; ends buttonshaped and slightly convex;  $6\frac{1}{4}$  inches wide,  $4\frac{3}{5}$  in the clear, and  $1\frac{1}{4}$ across opening; but the aperture seems to have been widened; Wt. 6 oz. 8 dwt. 19 gr. Found, together with the four foregoing, in the county of Clare. See p. 34. No. 27, a massive gold ring, figured and described at p. 46. Nos. 28 to 33, a row of seven hollow gold balls of different sizes, varying in diameter from 23 to 33 inches, and described at p. 35. No. 28, a hollow ball, the smallest and most battered; Wt. 1 oz. 8 dwt. 20gr.; purchased from Mr. West. No. 29, ditto, in better preservation, and somewhat larger; 27 inches in diameter; Wt. 1 oz. 9 dwt. 9 gr. (Dawson). No. 30, ditto, larger, much battered; Wt. 2 oz. 7 dwt. 7 gr. (Dawson). No. 31, ditto, the largest and most perfect specimen; 37 inches in greatest diameter across joining. See Fig. 560, p. 35. No. 31A, the most perfect specimen in the set, 3f inches in diameter; Wt. 2 oz. 7 dwt. 7 gr.; procured while this page was correcting. No. 32, ditto, in tolerable preservation, but somewhat more flattened at the ends than any of the others; Wt. 2 oz. 8 gr. (Sirr). No. 33, ditto, in tolerable preservation, but larger than the corresponding one on the opposite side; Wt. 1 oz. 17 dwt. 13 gr. (Sirr).

Nos. 34 to 40, a row of seven small, hollow, double conical beads, about half an inch long each, varying in weight from 9 to 11 grains, and together amounting to 2 dwt. 22 gr. One of these is figured and described at p. 37. Nos. 41 to 47, a row of seven tubular beads, embossed with different patterns, each about  $\frac{9}{16}$  inch long, and weighing from 5 to 7 grains; together amounting to 1 dwt. 18 gr. They, in all probability, originally formed the tubes of large, flat, double, conical beads, such as those described in the next lot, and one of which is figured at p. 36. These beads, with those previously described, are said to have formed part of an amber necklace, now in Railcase E, in Eastern Gallery, and found at Cruttenclough, near Castlecomer, county of Kilkenny.

Nos. 48 to 51, although of different sizes, and in great diversity of preservation, evidently belong to the same variety of ornament, the type of which is represented by Fig. 561, p. 36. No. 48, a

compressed gold bead, inch in diameter, formed of two conical portions, originally joined round a tube in the centre, and open at the side; Wt. 2 dwt. 19 gr. Purchased from a dealer. ditto, large, figured and described at p. 36. No. 50, ditto, of very fine thin gold; although somewhat smaller, it is still more perfect than the foregoing, and is most elaborately tooled in concentric circles on the sides; 11 inch in diameter, and 2 across central tube; Wt. 5 dwt. 2 gr. No. 51, a small conical bead, now flattened and horseshoe-shaped; minutely decorated on side-face; something more than # inch wide; Wt. 20 gr. Nos. 52 to 58, a row of seven thin, embossed, chalice-shaped gold beads, a typical specimen of which is figured and described at p. 37. Each is about 1 inch long, and weighs from 1 dwt. 4 gr. to 1 dwt. 10 gr. (Sirr). No. 59, a torqueshaped, penannular ear-ring, with small, plain ends; about ? of an inch in diameter; Wt. 1 dwt. 6 gr. No. 60, ditto; 7 inch wide in opening; Wt. 1 dwt. 1 gr. No. 61, ditto; thicker; 1 inch in diameter; Wt. 2 dwt. 15 gr. No. 62, ditto; Wt. 3 dwt. 4 gr. These four twisted ear-rings were procured with the Dawson Collection. last is figured and described at p. 38. No. 63, the large torque earring, figured and described at p. 38. No. 64, ditto, apparently the match of the foregoing, but somewhat lighter, and differing slightly in the form of the shoulder and collar; 1 inch wide; Wt. 11 dwt. 20 gr. Found at Castlereagh, county of Roscommon (Sirr). No. 65, ditto, but smaller and slighter; wants the collars at extremities of torque portion; 1 inch wide; Wt. 5 dwt. 8 gr. Found in the county Meath (Sirr). No. 66, an ear-ring of a different pattern to foregoing, figured and described at p. 38. No. 67, a small ringpendant, with a hollow ball attached to it by a loop, probably a portion of an ear-ring; Wt. 13 gr. Nos. 68 and 69, in two parts, a golden tassel pendant from a loop, probably part of an ear-ring; 1 inch long; Wt. 2 dwt. 3 gr. No. 70, the fragment of a gold ornament, consisting of a central stem, with wire-work like that in a whip-handle, rising into three bars round it; probably part of an armlet; it appears to have been cut across with a sharp tool; I inch long; Wt. 6 dwt. 1 gr. No. 71, a thin gold plate, 31 inches long; decorated; Wt. 1 dwt. 13 gr.; found with Nos. 72 and 75. No. 72. ditto, somewhat larger, but torn across the centre; ornamented

similar to foregoing, with marginal and transverse lines in two sets; measures  $4\frac{1}{16}$  inches by  $1\frac{1}{8}$ ; Wt. 2 dwt. 5 gr. No. 73, ditto, plain, with a loop at top; figured and described at p. 40. No. 74, ditto, plain; 5 inches long, and 1 wide; Wt. 4 dwt. 3 gr. No. 75, a thin plate, similar to No. 71. See Fig. 569, p. 39. No. 76, ditto, larger, corresponding to No. 72, on opposite side of Case, with transverse decorative bars, and ornamented edge;  $4\frac{1}{16}$  inches long, by  $1\frac{1}{8}$  broad; Wt. 2 dwt. 4 gr.; found in the county of Cavan, in same locality as Nos. 78, 79, and 80. See p. 40. No. 77, a narrow plate, possibly used for confining the hair; 9 inches long, and 18 wide; decorated with a funiform pattern, produced by punching from behind. One extremity is encircled by a narrow collar, probably used for fastening it when complete; Wt. 1 dwt. 2 gr. Nos. 78 to 81, four thin gold plates, apparently parts of the same or similar articles. The extremities of the first and last are rounded off. As now placed, the entire article measures 11½ inches, and weighs 8 dwt. 5 gr. No. 82, a highly decorated golden fillet, figured and described at p. 39. No. 83, a gold breast-pin, figured at p. 41. No. 84, another of the same class, also figured and described at p. 41. No. 85, a small circular gold brooch, with pin, 3 inch wide; has this inscription on back of ring: " + JESUS MARIA, H. VI.;" Wt., 22 gr. No. 86, ditto, somewhat larger; 11 inch across; Wt., 5 dwt. 3 gr.; on the reverse is the following inscription: "+PAR+AMVR+FIN+SVI.DVNG." No. 87, a small ring-brooch, ending in a pair of praying hands, with a dagger-like pin; one of a pair; has an inscription round the inner margin, not now sufficiently distinct for transcription; Wt., 1 dwt. 5 gr. No. 88, another of the same size, but somewhat lighter, and differently ornamented; Wt., 22 gr.

No. 89, a contorted armilla, plain; Wt., 7 dwt. 14 gr. Found, along with the bronze celt, No. 578 (Dawson). See p. 430, Vol. I. No. 90, a plain gold penannular armilla, slightly bulbous at extremities;  $2\frac{3}{4}$  inches in diameter; Wt., 19 dwt. 16 gr. Found in the county of Carlow, with Nos. 171, 172, 273, and 279. Nos. 91 and 92, two small gold armillæ, each  $2\frac{1}{3}$  inches in diameter; the first weighs 6 dwt. 14 gr., and the second 6 dwt. They are both plain, but slightly enlarged at the extremities, and formed a part of the great Clare Find, described at p. 31, and were—Presented by Charles

Haliday, Esq. No. 93, a gold armilla, plain, slightly enlarged at extremities;  $2\frac{5}{8}$  inches in diameter; Wt., 1 oz. 7 gr. (Dawson). No. 94, ditto, smaller, plain, oval;  $2\frac{1}{8}$  inches in diameter; Wt., 16 dwt. 17 gr. Found, with Nos. 95, 96, 98, and 99, at Strokestown, county of Roscommon, and—Presented by the Earl of Clarendon. See p. 51. No. 95, a flat, plain, armilla, apparently unfinished, narrow at extremities;  $\frac{1}{2}$  an inch broad; 3 inches wide; Wt., 1 oz. 11 dwt. 13 gr. No. 96, ditto, smaller; Wt., 1 oz. 8 dwt. 12 gr. Found, and presented as above. No. 97, a flat, oval bracelet, figured and described at p. 52 (Sirr). No. 98, ditto, also figured and described at p. 52. No. 99, ditto,  $2\frac{3}{4}$  inches in diameter; extremities broad; Wt., 1 oz. 1 dwt. 6 gr. Found and presented as Nos. 94, 95, 96, and 98.

Bracklets and Armillæ—in Irish, Failge Oir—are of two kinds; Perfect Rings, either plain or twisted, of rare occurrence; and penannular or Unclosed Rings, for apparently a like use, and found in great abundance. These latter are described in the next section, page 49. The former are well represented by the two following illustrations, drawn one-half the actual size.

Figure 573, No. 27, in Case C, is from a massive plain ring, 4½ inches in diameter, on which another small ring plays, like the bronze article figured and described at page

\*A.D. 3872. "It was Muineamhon that first caused chains of gold [to be worn] on the necks of kings and chieftains in Ireland." Ann. Four Masters; see also Annals of Clonmacnoise, in which it is said he "devised gould to be wrought in chains fit to be worn about men's necks, and rings to be put on their fingers."

A. M. 3882. King Faildeargdoid derived his name from the circumstance of the reddish golden rings then worn upon the hands of the Irish chieftains. Annals of Four Masters, and Annals of Clonmacnoise; see also Keating's History.

A. D. 1150. When Bishop O'Brolchain made the visitation of Cinel-Eoghaine he obtained, among other tributes, "a gold ring of five ounces" from Muircheartach O'Loghloinn.

A. D. 1151. When Archbishop Gillamaclaig made the visitation of Connaught, O'Conor gave him "a ring of gold of 20 ounces; and O'Brolchain, Bishop of Derry, got a ring of gold of two ounces weight, besides a horse and battle-dress, &c., from O'Lyn, Chieftain of Sil-Cathasaigh in Antrim. Annals of the Four Masters, Dr. O'Donovan's Translation.

570, Vol. I. It weighs 11 oz. 14 dwt. 19 gr., and formed a portion of the "Clare Find," described at page 31. Similar articles are occasionally observed sculptured upon the breasts

of the statues of ancient Roman generals, the small ring being attached to the dress.\*

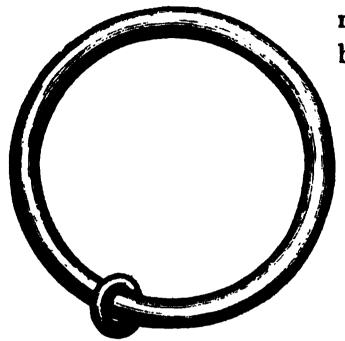


Fig. 573. No. 27.



Fig. 574. No. 198

Figure 574, from No. 193, in Case E, presents us with the finest specimen of the close twisted ring yet discovered in the British Isles. It is 4 inches in the long diameter, weighs 13 oz. 1 dwt. 1 gr., and consists of three rods of gold, each varying in thickness from the size of a man's little finger in the centre, to that of a piece of whipcord at the extremities. These rods are wreathed or twisted together, their outer ends being wrapt round the joining, as shown in the cut, and the other extremities hidden within the coil. It was found in the county of Carlow.

During the period of the Danish invasions, and the partial rule held by that people in certain parts of Ireland, our annals and histories record many plunderings by the Northmen, in which large quantities of gold were carried off. But, with the exception of some iron swords, spears, and a few other

<sup>\*</sup> Under the year 876, the Saxon Chronicle informs us that the Danes gave hostages to King Alfred, "and then they swore oaths to him on the holy ring, which they never before would do to any nation;" possibly it may have been on such a ring as that figured above. See also Proc. R. I. A., vol. xii., p. 504.

implements of war, chiefly found in the city of Dublin and its immediate neighbourhood, we have not yet met with any antiquities which would appear to have belonged to that people. Neither do the Collections of Denmark, Norway, or Sweden, except in very few instances, contain any articles that can with certainty be termed Irish. If our gold was carried by the northern invaders to their own country (where they had no native gold of their own), it was probably re-melted for the purposes of Scandinavian jewellery. The gold ornament in the Museum of the Academy, which more particularly bears the impress of Scandinavian art, is the large ring, probably an armlet, figured below, one-half the true size, and





Fig. 575. No. 290.

which was recently found, it is said, near Clonmacnoise, in the King's County, along with the twisted neck-torque, No. 291, figured at page 74, both now attached to Case E. This consists of a large, thin, hollow ring, 5½ inches in diameter, with a hollow, decorated bulb on one side, and on the other a

spiral enlargement, each with an embossed pattern, differing altogether from the style of ornament observed in any of our golden ornaments of native origin, as may be seen by the accompanying cuts, Figs. 576 and 577, both drawn the actual size.

The first represents the large bulbous ornament, in which the enrichment is in relief, and the concave portions between the central

and the lateral decorations are punched all over, so as to give them a frosted appearance. All the parts of this ornament are complete and continuous; but in the upper mem-

Fig. 576, No. 280.

ber there is an aperture for a pin or rivet, which fastened the hollow end of the ring at this place. Whether this mode of joining was temporary, it would not be possible, in the present state of the article, to decide.

Fig. 577 shows the enlargement on the opposite side of the ring, and represents a continuous band, which interlaces

with itself, and forms a sort of whip-handle-work decoration at this part. Its surface is covered with an involuted raised and embossed pattern, as if 'made by a



Fig. 577 No. 290

thread of gold-wire laid upon its surface. The whole article weighs 3 oz. 11 dwt. 12 gr. Similar articles, both in gold and bronze, but wanting the second enlargement, are preserved in the Copenhagen Museum.\* The Academy is in-

<sup>\*</sup> See Worsane's Nordiske Oldsager, 1859, Plate 56, Fig. 260, and Plate 85 Fig. 367.

debted to the Government for this article, which, together with the neck-torque, No. 291, were the first golden antiquities procured under the recent treasure-trove regulations. Both Pococke and Vallancey have figured and described massive and highly decorated bracelets found in Ireland in their times; the latter mentions the circumstance of "ten golden bracelets," found in Connaught in 1802, having been purchased for £700.\*

Unclosed Rings, Armillæ, Bracklets, and Cup-terminated Fibulæ, of different shapes, patterns, and styles of ornament, but all bearing a certain amount of affinity to an original type, have been discovered in great quantity, at different times, in Ireland. They have been found either singly or in hoards, as in the great gold find of Clare; and in some instances were crushed together, as if hidden in haste. The frequent mention in our early histories of royal personages having bestowed rings of gold on poets, bards, philosophers, and warriors, and the number of cases in which tribute was paid in similar ornaments, is confirmed by the many instances in which such articles are found throughout the country in the present day.

In addition to the many references given in the foregoing text and notes, we may mention the following. It is related that, in the early part of the first century, the wife of Nuadha Necht, the Poet-King of Leinster, who gave her name of Boann to the River Boyne, used to have her arms covered with rings of gold, for bestowal on poets and men of learning.† This royal patronage of poetry and history affords

<sup>\*</sup> The Martyrology of Donegal on 17th June, noticing St. Moling, says, "One night that Moling sent his fishermen to catch fish, they caught a large salmon in the nets; and when it was split open, there was found a ring of gold [Failge oir] in its belly, and Moling divided the gold into three parts; one-third he gave to the poor, and one-third to cover a relic, and the other third to do labours and works, &c." A. D. 696.

<sup>†</sup> See MS. Brehon Law, in Library, Trinity College, Dublin, H. 18, p. 545, quoted in Dr. Petrie's work on the Ecclesiastical Architecture and Round Towers of Ireland, p. 213.

one of many reasons to account for the amount and state of preservation of our domestic annals.

We do not find reference to Anklets,—such objects of personal decoration being chiefly confined to the inhabitants of warm climates, by whom the lower limbs are generally less covered than among people inhabiting the colder regions of the north and west.

The simplest form of bracelet is that of a plain ring, round or oval in shape, about 24 inches in diameter, to fit the wrist, and either flat or circular in section, unclosed at one side, and having the ends separated for about an inch, for greater facility of adjustment. In most instances, the extremities of the latter are enlarged or dilated into conical bulbs, with flat cymbal-shaped faces; or hollowed into cups, varying from slight, shallow, saucer-like concavities, to those resembling a goblet or the calix of a flower. Most of these rings are thick in the centre, and fine off gradually towards their bulbous ends. Others of a rarer description consist of a square bar of gold, twisted into the torque pattern, but without terminal Several of each kind have been found in enlargements. pairs. It is not unlikely that several bracelets of different patterns were worn together, as in the present day. Some of the plain, flat, and cylindrical rings are arranged in Case O, but the great majority of these specimens of ancient jewellery are in Case D, in the western ground-floor of the Museum. Each variety is illustrated in the following pages.

Golden Ingots, generally of an elongated oval form, triangular in section, and of various weights, have from time to time been found in different parts of Ireland; but, as they did not possess artistic value, they have been generally melted. We have one small article of this description in the Academy's Museum, No. 283, in Case F, figured, the natural size, on the opposite page. It weighs 12 dwt. 9 gr. Two similar ingots, the one weighing 3 oz. 12 dwt. 5 gr., and the other 1 oz. 6 dwt. 12 gr., were among the articles discovered at

Mooghaun, county of Clare, already referred to. Each of these ingots could, by a little hammering and manipulation,

be turned into a penannular armlet, either flat or cylindrical, and their weights correspond within a few grains with those of some of the armillæ alluded to at p. 31.



Fig. 578. No. 283.

By the two subjoined cuts are shown what would appear to have been stages in the formative process of these arm-

bands. Figure 579 is drawn, the natural size, from a portion of a plain bar of gold, with a bulbous hammered



Fig. 579. No. 284.

end, apparently intended for the usual terminal enlargement of such an article. It is 7½ inches long, and weighs 1 oz. 17 dwt. 6 gr. It was found near Carrigaholt, county of Clare. Figure 580, No. 280, represents a straight bar of

wrought gold, thick in the middle, and slightly enlarged at

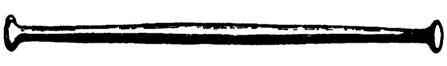


Fig. 580. No. 280.

the extremities. It is much more finished than the former, measures  $6\frac{3}{4}$  inches in length, and weighs 2 oz. 17 dwt. 1 gr. It is, in fact, finished in all respects, except the curvature, and closely resembles No. 113, in Case **D**. These three articles are attached to Case **F**, and they show that the manufacture of such articles was carried on in this country.

There are five examples of the plain, flat, unclosed hoop of gold in the bottom row of Case C, numbered from 95 to 99. In shape and workmanship they greatly resemble similar antique articles in silver found in Ireland. Of the two figured below, No. 98, which is perfectly plain, with slightly everted edges, and somewhat oval in form, measures 2½ inches in diameter, and weighs 1 oz. 4 dwt. 18 gr. It was found, with four others, "lying just between the gravel and turf, at a depth of six feet under the surface, in the townland of Vesnoy, near the ruins of Urney Church," in making a new cut through

the demesne of Strokestown, during the arterial drainage operations in the county Roscommon, in 1849, and was—Presented by the Earl of Clarendon, then Lord Lieutenant of Ireland.



Fig. 581. No. 98.



Fig. 582. No. 97.

See Proceedings, vol. iv., page 389, and vol. v., page 49, App. No. 97 is slightly decorated, and the hoop contracted towards the ends. It measures 2½ inches across; weighs 16 dwt. 16 gr.; it was found at Abbey Fore, county of Westmeath, and was procured with the Sirr Collection.

Figure 583, drawn, half size, from No. 191, in Case E, represents a solid armlet, punched all over, like some of the or-

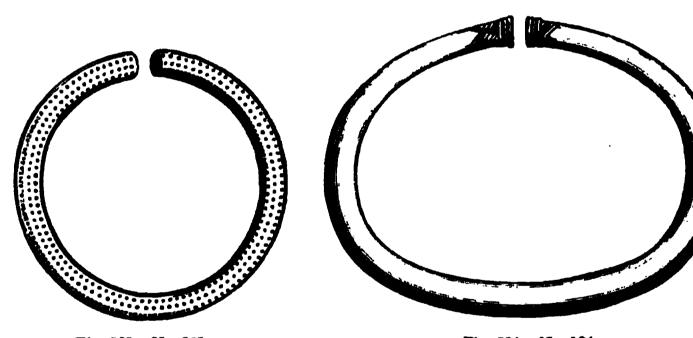


Fig. 583. No. 191.

Fig. 584. No. 194.

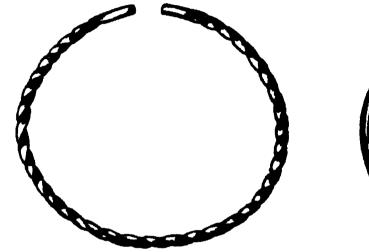
namentation on Scandinavian rings. It weighs 2 oz. 1 dwt. 5 gr., and was found, along with a plain but massive gold ring, 12 ounces weight, in the year 1833, near Trimleston Castle, on the Boyne, county of Meath, and was procured with the Dawson Collection.\* One of the most beautiful penannular

\* There is a model of the large ring alluded to above now in the illustrative Collection of the Academy.

See Dublin Penny Journal, vol. i., p. 413, where both rings are delineated

armlets in the Collection is the smooth, massive, cylindrical ring, with ornamented ends, No. 194, in Case E, figured above, one-half size. It weighs 3 oz. 15 dwt. 4 gr. See Proceedings, vol. v., p. 85.

The two following cuts, half the size of the originals, illustrate the light torque-shaped armlet, and that with enlarged and slightly cupped extremities, No. 172, in Case E, and



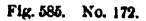




Fig. 586. No. 118.

No. 118, in Case D. The former is from a light, four-sided bar of gold, twisted into the torque pattern, and weighing 13 dwt. 17 gr. It was found, with its fellow, No. 171, and other specimens of antique gold manufacture, in the county of Carlow. Similar arm-rings may be seen in the Copenhagen Museum. The latter, No. 118, in Case D, is a good specimen of the unclosed bracelet, and differs slightly from the generality of these articles in not being cylindrical, but presenting a flattened quadrangular figure in section. It has the appearance of having been much worn, and its extremities are slightly cupped. It is 3 inches in diameter, weighs 3 oz. 12 dwt. 2 gr., and formed part of the "Clare Find," described

as the learned author of that notice, then believed that "rings of this kind were not only used as ornaments, but, before the introduction of minted coin, served as money;" and observed that even the torques and collars "served in lieu of money." That such valuables may have been occasionally used in barter, and, in the same way as cattle or any other marketable commodity, passed from hand to hand in these early times, before the introduction of coin, cannot be denied; but that they were originally intended for such purposes, or bore any specific value beyond that of gold, or that they were made any particular weight, remains to be proved.

at page 31. Similar penannular articles of bronze, with enlarged extremities, are occasionally found in Ireland, of which Fig. 479, page 570, Vol. I., is a good example. There are nineteen armillæ arranged at top of Case D, the details of which are given at page 66.

As may be seen by a careful inspection of the specimens of nearly every variety of weapon, tool, or ornament in our Collection, a gradual process of development of some particular part, or of some special design or style of decoration, is carried on throughout a series of articles, not always applied to the same purpose, but traceable from the rudest to the most elaborate examples of ancient art. This principle is very apparent in the transition from the simple unclosed ring, evidently used as an armlet, to a wide-spread fibula, with broad, shallow, or saucer-shaped extremities, as shown in the following section, under the head of Mammillary Brooches, and as a glance at Case D affords convincing proof. First, we have the plain cylindrical ring, enlarged at the ends into flat, buttonshaped knobs, as in Nos. 100 to 104, 106, 113, 115, and 116. Then the ends become slightly concave, as shown by Nos. 105, 107 to 112, 114, 117, and 118; afterwards they were deepened into cup or goblet-shaped terminations, many of which are adorned round their lips, and where the collars join the stems, with the usual lineal engraving, so characteristic of early Irish art. At the same time, the hoop was made either hollow or semicircular in section, as if to economise the material; for examples of which, see Nos. 141 to 145, and 148 and 150. Finally, the ring or hoop was lessened in girth, and spread outwards, and the dish-shaped terminations enlarged and expanded, until it is manifest that the article was applied to another purpose, and became a fastener, and not a bracelet, as may be seen in Nos. 120 and 121. But the transition is so gradual, even in the comparatively limited number of specimens presented by the Academy's Collection, that it is difficult to decide where the armilla ends and the brooch or fibula

commences.\* The same change by which one part of an article is retrenched, and another enlarged and developed, so as to become the chief object of decoration or of use, is well seen in the ring-brooches of bronze and silver. The following engravings illustrate this position. Figure 587, drawn from No. 111, represents, half size, a cylindrical unclosed ring, weighing 1 oz. 8 dwt. 22 gr., with thin, hollow, goblet-shaped extremities, half an inch deep, decorated round their edges by raised fillets, and having slightly engraved circular and zig-zag lines round the hoop for about an inch below their

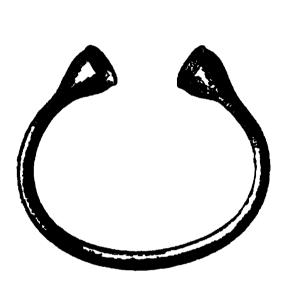






Fig. 588. No. 142.

attachments. In Figure 588, also drawn, half-size, from No. 142, may be seen the same variety of article on a larger scale, in which the handle is hollow, and the flower-shaped cups are beautifully engraved both within and without their lips. The collars are also decorated with the dog-tooth form of ornament, which, however, only occupies two-thirds of the circle,—probably to economize labour. Presuming that this article was worn on the wrist, we can only account for the retention of the cups by supposing that it was the fashion or style of art of

<sup>\*</sup> This shows the necessity for the guardians of a public collection obtaining and arranging in their proper places every article which can be procured, so that as many links as possible in the chain of art may be exhibited together. Possibly these different varieties in form and style of decoration, among our antique gold ornaments, may have indicated different grades in society;—but on this subject nothing is yet certain.

the period, a reason equally applicable to many unaccountable fashions in the jewellery of the present day. It weighs 2 oz. 4 dwt. 5 gr., and was found in the townland of Faunrusk, parish of Templemaley, near Ballyvaughan, county of Clare, in 1859.

In Figure 589, drawn, half-size, from No. 139, the hoop is very slender, and the cups deep and conical, with filleted edges. It weighs 17 dwt. 13 gr. In No. 150, the last article at the bottom of Case **D**, represented below, one-third the true size, by figure 590, the cups are shallow, and the hoop



Fig. 589. No. 139.

semilunar in section. It weighs 4 oz. 7 dwt. 1 gr. These articles were both procured with the Dawson Collection.

Hundreds of those unclosed hoops, with terminal cups, have been found in Ireland, and specimens of them may be

seen in most of our Museums. The celebrated full-sized bas-relief of the Roman standard-bearer, not long since discovered in the vicinity of Mayence, throws much light upon several of our ancient ornaments. The right fore-arm is decorated with unclosed armillæ; two penannular



Fig. 590. No. 150.

fibulæ, with enlarged and decorated terminations, are suspended from a strap which passes across the breast, and beneath these there are rows of circular phaleræ, like the round gold plates which will be found figured and described at page 83. Both these ornaments are regarded by Lindenschmit\* and other German antiquaries as decorations analogous to the medals worn in modern times. Presuming that certain ranks, professions, or grades of society in Ireland wore particular forms of ring or fibula decoration, we have at once a clue to the

<sup>\* &</sup>quot; Die Altherthumer unserer heidinschen Vorzeit," Heft iv., Tafel 6.

varieties and form of ornamentation to be seen even in those gold articles which have been preserved to the present day.

There are at present forty-six golden armillæ in the Academy's Collection, 11 in Case O, 27 in D, 5 in E, and 3 in F.

Mammillary Fibulæ.—For the sake of distinction and arrangement, we have applied this term to a class of gold ornaments, of great diversity of size, found in abundance in Ireland. They have been attached to Case D, in the Western Compartment of the ground-floor of the Museum, adjoining the door of the Moore Library.

As we traced the gradual formation of the cup from the flattened knob, as described in the foregoing section, so we may here follow the further development of that part to its greatest extent, among articles in which the staple-shaped handle portion becomes of secondary importance. Intermediate between these two varieties, represented by Figs. 588 and 592, there is another, in which the handle is wider, proportionably thinner, and less annular; and in which the discs are broader, shallower, and not attached by their centres, but towards their inner margins. Nos. 120 and 121, in Case **D**, are good examples of this variety. The former is here represented, one-half the actual size, and is further

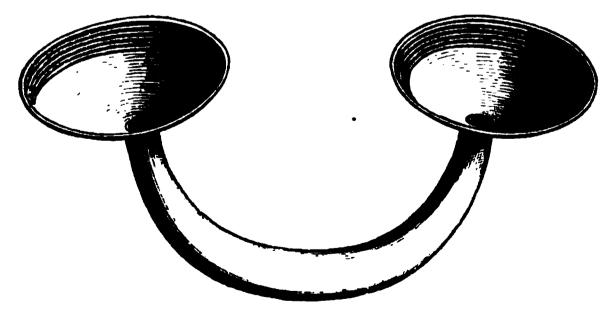


Fig. 591. No. 120.

remarkable for having the apertures between the shallow, saucer-shaped discs and the hollow handle still unclosed. It was probably left unfinished at that part. It is the second

largest fibula in the Collection, is of bright yellow gold, and in fine preservation. The edges of the cups are decorated with thorough flutings, one of the few instances of that peculiarity in this variety of ornament in the Museum. Each cup is 2½ inches in diameter; and when the article is laid on the flat of these portions, it stands 2½ inches high. It weighs 5 oz. 5 dwt. 16 gr.\* There are eight articles of this description at present in the Collection, Nos. 120 to 122, and 146 to 150. This last No., however already figured at p. 56, partakes more of the character of an armilla than a fibula.

The subjoined engraving, Figure 592, drawn, one-third size, from No. 122, represents the largest example of the mam-

## Fig. \$92. No. 123.

millary fibula which is known to have remained to the present day. It consists of two broad, cup-shaped discs, each 5 inches in diameter, set 1\frac{3}{2} inch apart, and united by a staple like the handle of a drawer, as seen in the foregoing illustration. The entire article measures 11 inches in length, and weighs 16 oz. 17 dwt. 4 gr. The internal surfaces of the cups bear marks of hammering all over them. The comparatively short, thick handle is hollow, and measures 4\frac{1}{2} inches in circumference at

<sup>•</sup> Mr. Law, of Sackville-street, possesses a very fine specimen of gold fibula, in shape somewhat between that of the foregoing and Fig. 590. The handle portion is lozenge-shaped in section. It weighs 6 oz. It has been in his establishment for many years.

the broadest part. Placed on the flat, it stands 3\frac{3}{8} inches high. The edges of the cups are turned over, and decorated externally with deeply-grooved flutings; and a smaller, but similar form of ornament encircles each neck, or narrow portion of the handle. Each cup, which is 1\frac{5}{8} inch deep, gradually slopes inwards from without, for about 4\frac{1}{4} inches, to the point of junction with the handles, which would appear to have been attached after they were made. This beautiful article was found in the year 1819, at Castlekelly, county of Roscommon, five feet deep in gravel, below where fifteen "spit" of turf had been cut, and it was for a long time believed to be brass. It was procured by D. H. Kelly, Esq., for the late Dean Dawson, and came into the Museum with that gentleman's Collection.

Various have been the conjectures respecting the uses of gold ornaments of this description; but an examination of kindred articles in bronze, preserved in the Museums of Copenhagen and Mayence, sets the question at rest. They were fibulæ, or brooches, in the fastening of which a portion of the soft woollen cloak or mantle passed in between the cups or discs, into the space under the handle, and was there fastened by means of an acus or pin, temporarily affixed to one side of the handle, where it joins the cup. In some instances, the ends of the pin were bifid, and clasped round the handle by means of a spring, as in the case of a bronze fibula in the Copenhagen Museum, figured by Worsaae, in the last edition of his Nordiske Oldsager. See Plate 51, Fig. 231. In other instances, as those in the Mayence Museum, of one of which there is a model in the Academy's Comparative Collection, the pin was fixed by means of an unclosed ring, attached to one extremity. In wearing, it is very possible that the pin was first passed through the dress, and then adjusted to the brooch by means of its spring, or open ring; but by what other devices these ornaments were held in position, we have now no means of determining. Upon a careful examination of a

great number of mammillary fibulæ, we have found two circumstances corroborative of the foregoing observation. The places in which these articles have been most worn are invariably at the junction of the handles with the cups, where the loop or clasp at the extremity of the pin would play; and also the edges of the cups, where they would rub naturally against the person.

In the Museum of Trinity College there is a magnificent fibula of this description, with solid handle and massive cups, which weighs 33 ounces (the heaviest now known to exist), and decorated all over the external surface of the cups with circular indentations surrounding a central indented spot; it has also a very elegantly engraved decoration encircling each collar, where the handle is joined to the cups, the inside lips of which are also beautifully ornamented. It is 8\frac{1}{2} inches long. The cups are more bell-shaped than in that belonging to the Academy, Fig. 592, and are also set on to the handle at a different angle, possibly to adjust it to the part of the

#### Fig. 590.

shoulder where we know, from some of the Roman and Frankish statues, the ancients occasionally wore the fibula.\*

The accompanying illustration, one-third the size of the original, affords a faithful representation of this most beautiful article, which stands nearly 31 inches high.† Within the last

<sup>\*</sup> Son Die Vaterländischen Alterthumer, der Fürstlich Hohenzoller'schen Sammlungen zu Sigmoringen. Mainz: 1860. S. 53, Fig. 85.

<sup>\*</sup> See the coloured drawing of this and other Irish antiquities in the College

two years, a remarkably fine article of this description was discovered near Keeper Mountain, county of Tipperary, by some peasants, who sawed it across; and the greater portion of it was shortly afterwards sold to a Dublin jeweller for less than its bullion value, and melted forthwith.\* Pococke and Vallancey have figured and described massive articles of this description, several of them beautifully decorated. The latter author, who called them "double-headed pateræ," supposed them to have been used in "libations to the two chief deities of the heathen Irish, viz., Budh and his son Pharamon, and also to the sun and moon!"† The decorations and dog's-tooth ornament on one of these articles he describes as typical representations of the elements, water and fire, and also says-"'The twelve circles may have represented the twelve signs of the zodiac, and their spheres. The forty-eight pyramids correspond with the number of the old constellations; and the seven triangles of the handle to that of the planets."—Collectanea, vol. vi., p. 240. Such were the interpretations offered and received sixty years ago, by not a few, for the mere artistic decoration of an Irish ornament! The learned Bishop, however, was not so speculative, but says,—"whether it be a species of fibula, or what else, I am utterly at a loss. Many such, diversified by only a few ornaments, have been found, from time to time, in different parts of Ireland." That distinguished antiquary published a drawing of one, found in the county of Galway, which weighed 15 oz. Vallancey has figured a very remarkable one, about 9 inches long, but 41 in the widest portion of the bow of the handle, which was found in

Museum, in Table 52, of the Catalogue of Illustrations in the Academy, and also the model of it in the Comparative Collection.

<sup>\*</sup> It is described by the Rev. Jas. Graves in the Proceedings of the Kilkenny Archæological Society—see vol. 2, N. S., p. 445.

<sup>†</sup> Letter to Rev. J. Dubourdieu, in the Statistical Survey of Antrim, published in 1812, p. 585.

<sup>‡</sup> Archæologia, vol. ii., p. 40.

the county of Galway, and weighed 52 guineas. Others, mentioned by Simon and Pococke, were also found in that locality.\*

One of the largest mammillary fibulæ recorded is that which was engraved by Dr. Dubourdieu, in his Statistical Survey of the County of Antrim, in 1812. It was not unlike that now in the Academy, Fig. 592, but was much more highly decorated. It measured 11½ inches in length, and weighed 19 oz. 10 dwt. Vallancey gave casts of two large fibulæ of this description to the Museum of Trinity College. They are very large, plain, and massive, the handles being wider and more arched, and the cups smaller and deeper than in any of the before-mentioned. One of these would appear to have been made from that represented by No. 2, pl. vi., vol. iv., of the Collectanea, which weighed 10 oz.

In the illustrative Collection of the Academy, there is a metal cast, presented by Dr. Petrie, of a very remarkable article of this description. The handle is large, massive, deeply bowed, embraced by a collar in the centre, and gradually enlarges into small, shallow, cup-shaped extremities. It stands 3\frac{3}{4} inches high, and is 7\frac{1}{4} in length. The original, which weighed 40 oz. 10 dwt., was discovered many years ago on the estate of the late Henry Adair, Esq., near Dunboyne, in the county of Meath.

In the lower portion of Case D, have been arranged a number of kindred articles, but proportionally wider, and more slender in the handles, and having smaller cups. In most of these the handles are hollow, as in No. 142, Fig. 588.

\* Mr. Simon's unpublished paper, referred to by Pococke in the Archæologia, vol. ii., has at length been discovered in the Archives of the Society of Antiquaries of London; and I am indebted to the courtesy of its present Secretary, Mr. C. K. Watson, for a copy of it. In one of the fibulæ described and figured by Simon, and which was about the size of No. 120 in the Academy's Collection (see Fig. 591, p. 57), the handle is beautifully decorated over its entire length. It is that figured by Pococke in the Archæologia, vol. ii., plate iii., fig. 1.

The subjoined illustration represents another variety of the same class of ornament, but differing from the former in having the discs perfectly flat, thin, and plain, and the solid connecting bow or handle invariably highly decorated with longitudinal groovings. This specimen, No. 123, is 5 inches in length, and each circular plate 2½ in diameter. Upon the external face of one of the plates is a small loop, possibly for the purpose of attaching a pin or a string to. This fact

## Fig. 504. No. 128.

strengthens the conjecture already expressed, as to the object and use of these articles. It weighs 4 oz. 15 dwt. 19 gr., and was procured with the Dawson Collection.\*

Below the centre of Case D have been arranged fourteen ar-

varying in size from that of the foregoing, to No. 124, Fig. 597, which is but half an inch in dia-



meter, and weighs only Fig. 596. No. 123. Fig. 596. No. 124. Fig. 597. No. 124. 2 dwt. 8 gr. In this descending scale, the plates gradually lessen until they disappear altogether, as shown in the an-

\* A similar gold article, with a small loop on the external face of one of the thin circular plates, has been figured by Vallancey in the Collectanea, vol. iv., Pl. xiv., Fig. 7, and described as an Aisin, which was "suspended by a string round the neck, and hung at the breast. On the external plate is a small loop, into which was fixed a slender golden wire, on which perched the Augur's favourite bird: the Hibernian Druids fixed on the wran!"—p. 96.

nexed illustration, representing, the true size, Nos. 133, 125, and 124. The grooving upon these snail-shaped articles has been effected with great precision, and adds a special lustre The extremity of each is also beautifully to the metal. tooled, apparently by engraving, as may be seen in the foregoing illustrations; but in every instance the inner curvature is plain. In No. 133, weighing 17 dwt. 7 gr., the terminal enlargements are turned slightly into the hollow of the bow; it was—Presented by J. H. Monck Mason, Esq. See Proceedings, vol. ii., page 272. No. 125 weighs 7 dwt. 12 gr., and has the ends slightly enlarged, as if for the purpose of attachment of plates, like those in Fig. 594. Figure 596, No. 125, was procured with the Dawson Collection. In No. 124, Fig. 597, there are no enlargements whatever; it is the second least specimen in the Collection; while No. 137, on the opposite side of the semicircle in which these articles are arranged on Case D, is less in size, but weighs 9 grains more. All these articles were at one time supposed to be "ring money;" but an examination of the weights of this series will show the absurdity of this theory.\*

\* Sir William Betham carried his "ring money" theory so far as to assert that not only these, but every unclosed ring of any metal, -gold, silver, bronze, or iron, plain or decorated, square, flat, twisted, or cylindrical, with or without cups, plates, or expanded extremities, and from the weight of 48 grains to 86 ounces,—was a specimen of "money." In his Etruria Celtica, vol. ii. p. iii., he copied (but without the slightest acknowledgment) Mr. Dubourdieu's plate of the large Antrim fibula, already referred to at p. 61, as an illustration of his views. He also says, "It was found in a stone chest." Now, none of our gold antiquities have been found in stone chests,—the small sepulchral Kistvaens of the early Irish,—nor in caverns referable to a very remote period, but almost invariably in the ground, in bog or upland. In General Vallancey's letter to the Rev. G. Dubourdieu, published in 1812—the only record of that "find"—it is stated that it was "sold by a peasant, who said he dug it up in the parish of Ballymoney."—See note, p. 61, of this Catalogue. Further, to show the inaccuracy of that writer, it may be mentioned that the weight of the Ballymoney fibula was 19 oz. 10 dwt., and not 19 oz., as mentioned in the Etruria Celtica. Again, Sir William Betham says in the same place—"Vallancey mentions one which weighed 56 oz." Two others are mentioned by Vallancey—"one 15 oz. and the other 1 oz. 12 grs." The author of the Collectanea nowhere mentions a

It is quite possible that the small crescentic articles, without plates, like No. 125, Fig. 596, are unfinished; for it is manifest that the discs might have been attached after the handle portions were completed, and perhaps engraved.

The following may have been the method by which these articles, both large and small, were employed as stude or fasteners between the button-holes of the dress. The accompanying figure, drawn in perspective the exact size, from the

## Fig. 608. No. 130,

fibula, No. 130 (which weighs 1 oz. 5 dwt.), also represents a fragment of dress, through the slits in which the plates were passed,—the portions of texture between the apertures occupying the space beneath the decorated hoop. We have experimentally assured ourselves of the feasibility of this process. A row of such stude, either of equal size, or decreasing gradually from one end to the other, would form a very beautiful decoration to the vest or tunic. The thin, perfectly plain, circular plates would, in all probability, have been engraved,

fibula of 56 os., but in Vol. vi., p. 287, plate xiii., describes one (already alluded to in the text) as having been sold in Dublin "for fifty-two guiness, its weight." The one "weighing 15 oz." was not known to Vallancey, but he quotes Bishop Pococke's description of it, on the page facing his plate of the Galway fibula, and this may have led to Sir W. Betham's mistake. These errors, out of many which might be recorded, show the general looseness and inaccuracy of that author's statements in his Kesay on "Ring Money."

or otherwise decorated, had they been intended for show, and not utility. In the specimen from which the foregoing illustration was made, the junction of these plates with the expanded ends of the bow is still manifest. It is also possible that some of the larger fibulæ and mammillary brooches may have been adjusted to the cloak or mantle in somewhat the same way as that described above, either by means of loops or button-holes.\*

The following list gives the details of the various fibulæ not described in the foregoing section:—

## WESTERN GROUND FLOOR.

Case D contains seventy-one articles of the species denominated fibulæ, armillæ, and ring-money, &c., chiefly consisting of ununited rings, with either plain, enlarged, or cupped extremities; and numbered from 100 to 170. The top row consists of a number of rings open on one side, and apparently used as bracelets or armlets, in which the enlarged extremities increase gradually, from a small, solid bulb, flat on the face, to a thin, conical cup, or goblet-shaped end. No. 100 is a light penannular article, circular in section, with flat terminations, 2\frac{2}{3} inches in long diameter; Weight, 7 dwt. 11 gr. No. 101, ditto, a finer specimen, oval; 2\frac{2}{3} inches wide; Wt., 8 dwt. 11 gr. No. 102, ditto, very similar; 2\frac{1}{2} inches; Wt., 8 dwt. 18 gr.; said to have been procured at Tullow, county of Carlow (Sirr). No. 103, ditto; 2\frac{2}{3} inches wide; Wt., 9 dwt. 3 gr. No. 104, ditto, larger; bent irregularly; Wt., 1 oz. 17 gr. No. 105, ditto, flat,

\* Even Vallancey, with all his absurd fancies, was of opinion that these bows, with "circular flat ends," were fibulæ; that the discs passed through the button-holes, and lay flat on the body, and that the chased or ornamented part was turned forwards; yet he did not see that the Aisia referred to in the note at p. 63, and resembling our Fig. 590, was of precisely the same shape, and evidently intended for a similar purpose; and that the identical article had been figured and described by Pococke long previously, with these observations—"It was made use of to fasten a cloak or other loose garment by passing it through an opening worked on each side for this purpose." In matters of fact and illustration, Vallancey's plagiarisms of Pococke are as patent as the adoption without acknowledgment of the General's opinions by more modern writers.

four-sided in section, extremities large and somewhat cupped; diameter 2\frac{3}{2} inches; Wt., 16 dwt. 10 gr. No. 106, a thick penannular ring, with the enlarged extremities flat on the face; 28 inches diameter; Wt., 1 oz. 9 dwt. 20 gr. No. 107, an arm-ring, like No. 105; discs slightly cupped; 2\frac{1}{2} inches in diameter; Wt., 1 oz. 3 dwt. 5 gr. No. 108, ditto, larger, extremities enlarged and slightly dished; diameter 2\frac{3}{4} inches; Wt., loz. 11 dwt. 17 gr. No. 109, a penannular armlet, with large cup-shaped extremities; diameter 21/3 inches: Wt., 1 oz. 1 gr. No. 110, ditto, circular in bar, fining off towards the ends, extremities cup-shaped; 2½ inches in diameter; Wt., 11 dwt. 19 gr. No. 111, ditto, figured and described at p. 55. No. 112, ditto, not so massive, extremities saucer-shaped; diameter 25 inches; 11 between inner edges of discs; Wt., 1 oz. 2 dwt. 7 gr. No. 113, a penannular arm-ring, large, massive, bar circular, extremities slightly expanded and flattened; diameter 3 inches; Wt., 2 oz. 9 dwt. No. 114, ditto, light, extremities cup-shaped; 2\frac{3}{8} inches in diameter; Wt., 19 dwt. 11 gr.; stated by Mr. Clibborn, in the Official Catalogue of the Dublin Exhibition of 1853, to have been found in the cinerary box, No. 275, in Case F. No. 115, ditto; 2½ inches in diameter; ends flat; Wt., 1 oz. 2 gr.; said to have been found in box, No. 277, Case F. No. 116, a massive oval ring, circular in section, extremities unclosed and slightly enlarged; 3 inches in diameter; Wt., 4 oz. 11 dwt. 3 gr. No. 117, a massive armlet, with slightly cupped extremities; diameter 3; inches; Wt., 4 oz. 3 dwt. 2 gr.; part of the "Clare Find." No. 118, ditto, on opposite side of Tray; figured and described at p. 53. No. 119, in centre of circle of "ring-money," the broken-off cup of a large fibula, decorated round the margin with three grooved lines, which pass through the substance of the metal, like No. 120; oval; the apex of the cone to one side of centre, where there are the remains of the double plate by which this portion was attached to the handle; 27 inches by 23; Wt., 1 oz. 11 gr. No. 120, a large fibula, figured and described at p. 57. No. 121, on the opposite side of the Tray, ditto, but smaller, handle apparently solid; decorated on the inside margins of cups with three elevated lines, but perfectly plain on the outside; total length 51 inches; stands 21 high; each cup is 21 wide; Wt., 4 oz. 11 dwt. 2 gr.—Presented by the Marquis of Kildare. See Proc., Vol. iii., p. 138. No. 122, the largest fibula in the Collection, placed in centre of Case, figured and described at p. 58.

No. 123, the large flat-plated fibula, figured and described at p. 63. In a semicircle beneath it have been arranged fourteen similar articles of smaller size, in which the terminal plates are flat, and gradually developed until they reach their maximum in No. 130. No. 124, a small, solid, penannular ring, with deeply-grooved ornament on its convexity, no plates, figured at p. 63. No. 125, ditto, larger. See Fig. 596, p. 63. No. 126, ditto, plates become developed, . tooling on handle sharper and more regular than in foregoing; length \( \frac{1}{4} \) inch; Wt., 7 dwt. 11 gr. No. 127, ditto, larger, plates still more developed; the collar spreads out into the plate on each side, unlike No. 123, in which it would appear that the plates were superadded; length  $\frac{7}{8}$  inch; Wt., 10 dwt. 12 gr. No. 128, ditto, about the same size; plates somewhat larger, measuring § inch in diameter; Wt., 11 dwt. 22 gr. No. 129, ditto, still larger and heavier, decoration and plates the same; Wt., 13 dwt. 20 gr. No. 130, the largest of these small fibulæ, is 17 inch long, each circular plate 12 wide, collars of connecting loop highly decorated; Wt., 1 oz. 5 dwt. No. 131, ditto, heavier in hoop, but smaller in plates; 1\frac{1}{8} inch long; each plate 1 wide; Wt., 1 oz. 7 dwt. 7 gr. No. 132, ditto, smaller, plates battered; 12 inch in diameter; Wt., 13 dwt. 17 gr.; found near Kells (Sirr). No. 133, ditto, figured and described at p. 63. No. 134, ditto, smaller, with slight, thin, terminal enlargements; length, 1 inch; Wt., 8 dwt. 6 gr. No. 135, ditto; Wt., 8 dwt. 7 gr. No. 136, ditto, small, no enlargements; & inch in length; Wt., 4 dwt. 7 gr. No. 137, ditto, crescent-shaped; \(\frac{1}{2}\) inch in diameter; the smallest specimen in the Collection; Wt., 2 dwt. 17 gr. 138, a penannular ring, with very deep wineglass-shaped extremities; 3 inches in diameter; Wt., 2 oz. 6 dwt. 20 gr. No, 189, ditto, figured and described at p. 56. No. 140, ditto, more massive, decorated round edges of cups and collars; Wt., 2 oz. 15 dwt. 17 gr. No. 141, ditto, larger, massive, undecorated, handle hollow, lip of each cup everted; diameter, 23 inches; Wt., 3 oz. 5 dwt. 22 gr.; found near Castlebar, county of Mayo. No. 142, ditto, figured and described at p. 55. No. 143, ditto, handle hollow, and fractured;

cups deep, wide, and decorated round edges; diameter  $3\frac{1}{4}$  inches; Wt., 1 oz. 14 dwt. 12 gr. No. 144, ditto, cups goblet-shaped, with inverted edges; collars decorated with circular bands and dog-tooth ornament, which latter, as in No. 142, is defective internally. Such is the usual form of decoration in all these articles. The margins of the cups are decorated with a lightly engraved chevron pattern; diameter  $3\frac{1}{4}$  inches; Wt., 2 oz. 16 dwt. 5 gr. No. 145, ditto, bent, handle hollow, cups deep, thin; decorated round edges and at neck with herring-bone ornament; diameter  $3\frac{3}{8}$  inches; Wt., 1 oz. 4 dwt. 8 gr.

The last row contains five fibulæ, wider in the handles than any of the former, and with shallow, saucer-shaped extremities. The handles are solid, and either semi-oval or four-sided. No. 146, wide, massive; handle slender, cups shallow; resembles the large fibula, No.121;  $3\frac{1}{2}$  inches across; Wt., 2 oz. 16 dwt. 1 gr.; found in the county of Leitrim. No. 147, ditto, cups thicker, and still more shallow, with everted lips; handle four-sided;  $4\frac{2}{3}$  inches wide; Wt., 3 oz. 18 dwt. 19 gr. No. 148, ditto, cups broad, deep, with inverted edges, and slightly decorated on inner margins, each 2 inches wide; a section of the handle would be a segment of a circle; diameter  $4\frac{7}{3}$  inches; Wt., 2 oz. 11 dwt. 7 gr. No. 149, ditto, handle solid; cups thin, wide, and shallow; Wt., 3 oz. 6 dwt. 12 gr. No. 150, ditto, figured and described at p. 56.

In a semicircle around the detached boss, No. 119, above the large fibulæ, are a series of fifteen small unclosed rings, usually denominated "ring-money," described at p. 87; and, below them, a row of five specimens of forgeries of the same class of article. These articles are numbered from 151 to 170, the numbering commencing with a very small ring on the right-hand side of the Case. They increase in size to No. 158, and then decrease to No. 165, on the opposite side. No. 151, a very small unclosed ring, measuring  $\frac{3}{16}$  of an inch wide, figured and described at p. 88. No. 152, ditto, somewhat larger, plain; Wt., 1 dwt. 16 gr. No. 153, ditto, larger;  $\frac{1}{2}$  inch in diameter; Wt., 2 dwt. 17 gr. No. 154, ditto, larger and thicker; Wt., 3 dwt. 17 gr. No. 155, ditto, larger, but not quite so thick; Wt., 3 dwt. 12 gr. No. 156, ditto, thick, massive, striped, with the indentations very perceptible;  $\frac{5}{6}$  of an inch wide; Wt., 6 dwt. 7 gr.;

No. 157, an unclosed ring, thick, massive, plain; Wt., 7 dwt. 4 gr. No. 158, the largest ring of the set; \(\frac{1}{16}\) of an inch wide; barred; striping narrow and close, much worn externally, but very distinct along inner circle; Wt., 11 dwt. 19 gr. From this number the articles decrease in size to No. 165. No. 159, plain, massive. See Fig. 621, p. 88. No. 160, ditto, smaller, striped. See Fig. 622, p. 88. No. 161, ditto, plain, smaller, of reddish gold, like that in fashion some years ago; Wt., 2 dwt. 11 gr. No. 162, ditto, smaller, narrow towards extremities; yellow gold; Wt., 2 dwt. 6 gr. No. 163, ditto, not so thick; Wt., 1 dwt. 16 gr. No. 164, a remarkable form, thick in the middle, and tapering towards the ends, like the snail-shaped handles of the flat-plated fibulæ; Wt., 2 dwt. 13 gr. No. 165, ditto, very diminutive; the least in the Collection; Wt., 14 gr.

Forgeries, consisting of unclosed rings, covered with gold plate, and numbered from 166 to 170, form the bottom row. No. 166, in good preservation, a copper ring, covered with a thin plate of gold, slightly open at top; Wt., 5 dwt. 1 gr. No. 167, ditto, larger, cut across; Wt., 10 dwt. 19 gr. No. 168, ditto, still larger, cut to show the copper centre; Wt., 12 dwt, 6 gr. No. 169, ditto, perfect; Wt., 8 dwt. 14 gr. No. 170, ditto; Wt., 7 dwt. 11 gr.

Of the foregoing articles, Nos. 100, 105, 109, 110, 112, 113, 116, 122, 123, 125, 127, 128, 129, 131, 134 to 139, 143 to 147, 150 to 156, and 159 to 165, were procured with the Dawson Collection.

Torque—in Irish, Torc—is a term applied to a ring of twisted metal, generally gold, worn either on the neck; round the waist; across the breast; or on the limbs, as an armilla or finger-ring. The simplest form is that of a square bar of gold, twisted so as to present a funicular, or rope-like figure. In the more complex forms, two or more flat strips of metal, joined at their inner edges, are twisted together spirally. The name is expressive of the form.

Decorative articles of this description were known to the Egyptians, the Persians, the people of Persepolis, the Gauls, the early Britons; and, in later times, to the Romans, on the

coins and monuments of which latter they are figured; but to the Irish Celt they seem to have belonged as a special and frequent form of decoration. They are frequently mentioned in our early Irish histories; and more golden torques have been discovered in this country, and are to be seen in more varieties, and of greater magnitude, in the Museum of the Academy, than in the collections of all the other countries of Europe collectively. They amount to thirty-seven specimens, which, except No. 291, in Case F, have been arranged on Case E. Typical examples of each variety are afforded by the following illustrations. The ends of the torque form loops, which hook into one another, and present great diversity of design and ornamentation.

In the subjoined woodcut have been grouped three varie-

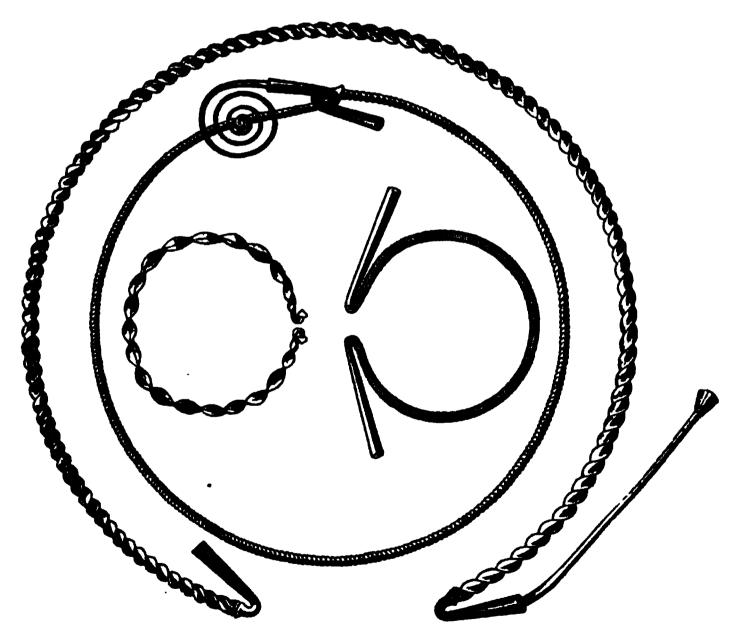


Fig. 599. No. 192. Fig. 600. No. 173. Fig. 601. No. 181. Fig. 602. No. 174.

ties of torque. The most external, figure 599, from No. 192, is the largest ever known to have been found; it measures

5 feet 7 inches in length, and is 151 inches in diameter when closed. It is formed of four flat bars of gold, united together at their edges when straight, and then twisted—an artistic process now very difficult to achieve—the whole being 16 ths of an inch in diameter. The terminations are prolonged into strong, circular, recurved bars, one of which is drawn out into a projecting arm, 10½ inches in length, and terminates in a short conical knob. It was probably worn obliquely across the breast, with the projecting member in front, where it might have served to hang the bridle-rein upon. It weighs 27 oz. 7 dwt. 20 gr., and is the heaviest article of antique manufactured gold now in the Academy's Collection. 173, Fig. 600, placed in the illustration immediately within the former, is another torque, lighter and smaller than the foregoing, and having the roping closer. It measures 5 feet 6 inches in length, is 141 inches in diameter of the ring, and weighs 12 oz. 7 dwt. 13 gr. The coiled extremity is, in all likelihood, not the original form of the terminal bar, which is similar in shape to that of No. 192.

These two magnificent torques were found by a peasant-boy, in 1810, in the side of one of the clay raths at Tara, near the monuments of the Druids, Mael Blocc and Bluicni, and were purchased by Alderman West, of Skinner-row. They were brought for exhibition to St. Petersburgh by the Russian ambassador, and afterwards disposed of to the Duke of Sussex. After remaining in His Grace's possession for some years, they were re-sold to Mr. James West, and, in 1839, were purchased by subscription, and presented to the Royal Irish Academy, where, with a few other articles remaining from the date of the foundation of the institution, and the cross of Cong, presented by Professor Mac Cullagh, they formed the nucleus of the present Collection.\*

<sup>\*</sup> See Proceedings, vol. i., p. 349. See also the Dublin Penny Journal, vol. i., p. 156, and Dr. Petrie's Essay on the History and Antiquities of Tara Hill, in th

Of the Waist-Torque—evidently too large for the neck, and too small to be worn across the breast—we have a good example in No. 179, described at page 79, which, though 441 inches in length, and 13 in diameter of hoop, weighs only 3 oz. 3 dwt. 15 gr. The ends of this variety are not prolonged, and do not stand out like those of the breast-torques, but terminate in simple hooks. No. 180, described at page 80, is of a like description, but formed of a plain, quadrangular, untwisted bar of gold, with round hooked terminations. measures 3 feet 1½ inch in length, and weighs 9 oz. 16 dwt. 18 gr. Among the articles recently deposited in the Museum by the Royal Dublin Society, there is a brass model of a gold torque, with plain conical ends, which measures 12½ inches in diameter; and in the Vetusta Monumenta, vol. v., pl. 29, may be seen engravings of two gold torques of this description, found in Ireland, each about 9½ inches in diameter, which were in the possession of the Earl of Charleville in 1819.

Another description of torque, evidently from its size a Neck-ring—Muin-torc, or Muinche—consists of a simple flat strip or band of gold, the breadth of a piece of ordinary tape, loosely twisted, and having generally small hooked extremities, which loop into one another. Of this kind there are three very perfect specimens and many fragments in the Collection. Nos. 181 and 182 are of nearly the same size and weight, the former of which, Figure 601, in the foregoing illustration, is a typical example. It measures 5½ inches in diameter, and weighs 19 dwt. 16 gr. No. 291, in Case F, figured half size, is a very fine specimen of the same variety, recently found with No. 290, near Clonmacnoise (see page 47); but differs from those already referred to, in having hollow, olive-shaped terminations. The twisted portion

Transactions, vol. xviii., p. 181. For a learned and ingenious Essay on the Torques of the Celts, see Mr. Birch's paper in the Archæological Journal, vols. ii. and iii.

is not so well finished as in the corresponding articles in Case **E**, already referred to; but it possesses an especial interest from being the only torque which has yet come to light which tends to explain a passage in one of our ancient ma-

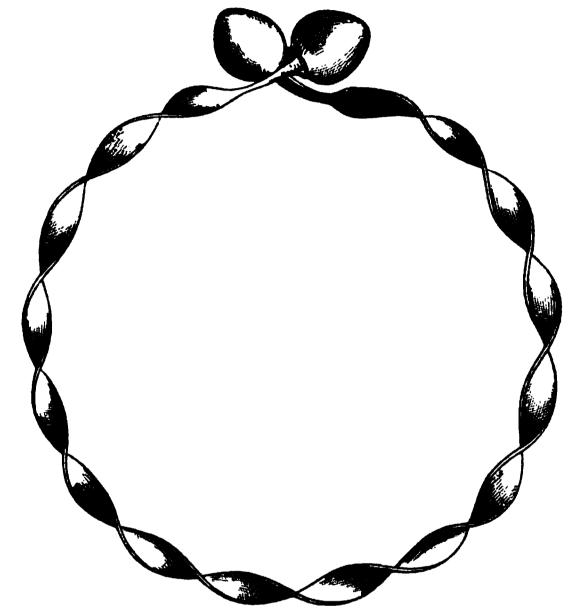


Fig. 608. No. 291.

nuscripts, describing "two apples or balls of gold on the two forks of his muinche [neck-torque], each the size of a man's fist." It measures 5½ inches across, and weighs 2 oz. 2 dwt. 5 gr.†—Presented by the Government.

Of the same form of light, flexible neck ornament, but still more attenuated and fragile, and somewhat more complex

- \* Irish MS., H. 8. 18, p. 891, in the Library of Trinity College. quoted by Dr. Petrie, in his Essay on the History and Antiquities of Tara Hill, Trans. R. I. A., vol. xviii., p. 183.
- † There is a small torque of this variety in the Antiquarian Museum of Edinburgh, of which there is a model in the Comparative and Illustrative Collection of the Academy.

in construction, are the fragments of at least seven small

torques, arranged at the bottom of Case E, each composed of a screw-shaped and exquisitely thin band, broad in the centre, and tapering gradually towards the ends, where it terminated either in small hooks or button-shaped projections, as represented in the three subjoined cuts, drawn, the full size, from Nos. 197, 198, and 202. The most



ig. 604. Fig. 6 (o. 197. No. 1

Fig. 608. No, 202.

of these fragments vary from 1 to 2 inches in length; several are much smaller, but have been joined together by means

of fine gold-wire. The remains of these seven torques weigh but 2 oz. 10 dwt.
11 gr.; and the majority of them were found at Derravonna, near Crom Castle, county of Fermanagh. See details at page 80.\*

While most of these neck-torques are so light, elegant, and fragile, as only to be found in fragments, like the remains of the spiral specimens, portions of

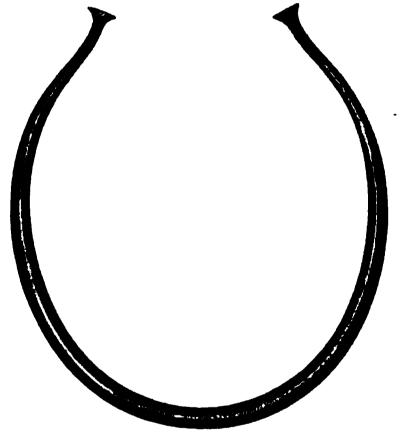


Fig. 607. No. 175.

which are figured above, others are solid, perfectly plain, either round or flat in section, and oval in form, as shown by the annexed illustration from No. 175, one of a pair which

\* That learned antiquary, Mr. Albert Way, in his valuable article on "Ancient Armillæ of Gold," in vol. vi. of the Archæological Journal, for 1849, p. 53, has figured and described one of these beautiful ornaments, "formed of a thin plate or riband of gold, skilfully twisted, the spiral line being preserved with singular pre-

formed a part of the "Clare Find," already referred to at page 31. It is 6½ inches across, and 6¾ in the long diameter, and is formed of a circular bar, thick in the middle, and tapering to the button-shaped and slightly everted extremities, which are 3 inches apart. It weighs 6 oz. 12 dwt., or 1 dwt. 18 gr. less than its fellow, No. 176, described at page 79.

Although the use and mode of application of the flexible twisted bands, or neck-torques, already referred to, is so apparent as to leave no room for speculation, the manner of wearing the thick, heavy gold twisted ring, with wide-spread ends, No. 174, represented by Figure 602, in the general torque illustration at page 71, is not so manifest. It is 25 inches in length, is 5\frac{3}{4} in diameter, measures 7\frac{3}{4} between the terminal ends, and weighs 12 oz. 10 dwt. 7 gr. The roping resembles a coil of several wires; but the everted terminations are plain, and enlarged towards their ends. It was found in May, 1841, three feet under the surface, near Aughrim, in the neighbourhood of Ballinasloe, county of Galway.

Of the torque-pattern armlets, an example has been afforded by Figure 585, at page 53; and of the finger-rings, which assume that shape, No. 184, figured at page 81, is a good specimen. No. 188, in Case **E**, here shown, the natural

size, by Figure 608, is a portion of torque, formed of four wires, twisted together, and encircled at the end by



Fig. 608. No. 188.

a decorated collar. It weighs 5 dwt. 15 gr. This fragment was cut off sharp, as if with a chisel, and now measures only 21 inches, but its workmanship is particularly elegant. Its

cision," which was found at Largo, in Fifeshire, near the Frith of Forth, and which Mr. Dundas, of Arniston, its owner, regarded as of Danish origin. No such ornaments have, however, been found in any part of Scandinavia; and Mr. Way very justly remarks—"we are reluctant to suppose so graceful an ornament to be of Danish origin." Had this Catalogue been published fourteen years ago, the English and Scotch antiquaries would have had no difficulty in assigning an Irish origin to these ornaments.

analysis shows it to consist of gold, 96.90; silver, 2.49; and copper, a trace. See Transactions, R. I. A., vol. xxii., p. 34, No. 3.

Besides the various uses to which the golden torque of the Irish was applied, as explained in the foregoing description, it was probably also worn on the head, or for binding up the hair; in which position it may have been an emblem of royalty or power. It is stated that when Julian the Apostate was proclaimed emperor by the soldiers, one of them, named Maurus (probably a Gaulish Celt), took the torque from his neck, and placed it on the head of the monarch.\*

It is related in the Book of Ballymote that, when Cormac Mac Art reigned at Tara, he wore a fine purple garment, had a golden brooch on his breast, and a muin-torc, or collar of gold, around his neck, and a belt adorned with gold and precious stones about him.†

In that part of the Life of St. Brendan, of Clonfert, referring to his visit to the monks of Meath, we read that Dermot Mac Cerrbheoil, the last resident king at Tara, saw in a dream two angels, who took his torque from his neck, and gave it to a stranger. When the king saw St. Brendan, he exclaimed, "This is the man to whom the angels gave my

<sup>\*</sup> See Gibbon's Decline and Fall of the Roman Empire, A. D. 300. The words used by the great historian are:—Julian "was exalted on a shield in the presence and amidst the unanimous acclamations of the troops; a rich military collar, which was offered by chance, supplied the want of a diadem." In the edition of Gibbon published in Bohn's British Classics, "with variorum notes; edited, with further illustratrations from the most recent sources, by an English Churchman," we find in vol. ii., at p. 470, the following most extraordinary note:—"Even in this tumultuous moment, Julian attended to the forms of superstitious ceremony, and obstinately refused the inauspicious use of a female necklace, or a horse-collar, which the impatient soldiers would have employed in the room of a diadem." Why the Editor should have thought it necessary to dispute the text of Gibbon, and the authorities on which the great English writer relied, and called the "rich military collar" nothing more than "a female necklace, or a horse-collar," it is difficult to imagine.

<sup>†</sup> See Petrie's History and Antiquities of Tara Hill, Transactions, R. I. A., vol. xviii., p. 183.

torque." The dream was interpreted by the sages, that his kingdom should pass away from him, and become the inheritance of clerics.\*

The celebrated statue of the dying gladiator has a torque round the neck; and in the Pompeian mosaic referred to at p. 311, Vol. I., the chief equestrian figure is decorated with a torque round the neck, and torques on the arms, between the shoulders, and elbows. When Cornelius overcame the Boii, an ancient Gaulish people, no less than 1470 torques were collected from the vanquished. The term Torquatus was bestowed on Titus Manlius and his posterity, on account of the golden torque which he took from a Celtic Gaul. The ancient British queen, Boadicea, is described as having been decorated with this form of ornament; and subsequent to her time, a "Welsh prince was called Llewellin aur dorchag, or Llewellin of the golden torque."

Alluding to a very early period of Irish bardic history, Keating says, "at this time there was a Flease, or bracelet, on the arm of every chieftain, as a mark of dignity as leader of a sept; and hence, at this day, the head of a tribe is called in Irish Fleaseach Uasal."† The same Irish historian states that, in the chivalrous days of the Knights of the Red Branch, and the renowned Queen Meabdh, of Connaught—the times of the Tain Bo Cuailgne, or great cattle-raid of Ulster—"It was the custom, as an inducement to champions to behave valiantly in the fight, to give the badge of heroes [mir curadh] as a mark of victory, to him who showed himself the bravest in single combat, and who vanquished his adversary in the field of valour;" and, adds the translator in a note, "it was some ornament or mark of merit, like the medals or ribbands of modern times."—p. 377.

The celebrated Ollam Mac Liag, the poet laureate of

<sup>\*</sup> See Codex Kilkenniensis, in Archbishop Marsh's Library; also Petrie's Tara, loc. cit.

<sup>†</sup> See Haliday's Keating, vol. i., p. 237.

Brian Boroihme, gives an account in the Leabhar Oiris of an excursion which he made to the plain of Rath Raithlen, when both himself and his attendants were presented with a variety of gifts—kine, horses, and armour, garments, chess-tables, and also chains, rings, and many ounces of gold.

The following is a detailed list of the various articles of the torque pattern in Case =:—

Case E contains thirty-six articles of the torque pattern, numbered from 171 to 207, among which are the two great torques found at Tara. Nos. 171 and 172 are a pair of twisted unclosed bracelets, found with No. 90, in Case C, and Nos. 273 and 279, in Case F, in the county of Carlow, in 1858. The first measures 22 inches in diameter, and weighs 12 dwt. 3 gr. The second is figured and described at p. 53. No. 173 is the smaller of the Tara torques, figured and described at pp. 71 and 72. No. 174 (within the former), the massive neck-torque, with recurved ends, figured and described at pp. 71 and 76. Nos. 175 and 176, placed on opposite sides of the case, a pair of plain oval neck-torques, of a peculiar pattern, and almost identical in shape, size, and weight. The former is figured and described at pp. 75 and 76. The latter is  $6\frac{1}{4}$  inches wide, and 63 in the long diameter; Wt., 6 oz. 13 dwt. 18 gr. They were found together, and form a portion of the "Clare find." No. 177, a small penannular torque-shaped bar, inch wide, square in section; Wt., 2 dwt. 7 gr. No. 178, ditto, on opposite side of Case, somewhat larger; Wt., 5 dwt. (Dawson). No. 179, a light, but very elegant waist-torque, the third largest in the Collection, of the screw or spiral pattern, like No. 173; solid conical terminations; measures 44½ inches in length, of which each terminal loop is 2½;

Before concluding the description of the chief personal ornaments of gold, the following additional references to the *Mind*, for which I am indebted to Mr. Crowe, already referred to at p. 12, serve still further to illustrate this interesting subject:— "It was Fallaman's vow that he would not go back to Eman, until he should bring the head of Ailell with him, together with the *Mind* of gold which was on it "— *Tain Bo Cuailgne*, L. H., fol. 56. B. "Let the Druid go in my figure, says Ailell, and the *Mind* of a king upon his head."—*Ibid.*, fol. 53.

<sup>\*</sup> See Hardiman's Irish Minstrelsy, vol. ii., p. 871.

diameter, 13; Wt., 3 oz. 3 dwt. 15 gr. (Sirr). No. 180, a very remarkable waist-ring, of the torque shape, but quadrilateral in section, each face of the square being  $\frac{5}{16}$  of an inch broad, with round hooked terminations, each 11 inches long; measures 371 inches in length, and 10<sup>2</sup> in diameter of circle; Wt., 9 oz. 16 dwt 18 gr. Found, with No. 186, in the vicinity of Enniscorthy, county of Wexford, and purchased by a subscription from the Members of the Royal Irish Academy. No. 181, the light and beautifully-twisted neck-torque (Fig. 601), forming a portion of the group represented and described at p. 71 (Dawson). No. 182, ditto, smaller, but of the same character, and 5 inches across the circle; button-shaped hooked terminations; Wt., 17 dwt. 12 gr. No. 183, small terminal fragment of a torque; Wt., 8 dwt. No. 184, a small plain, three-sided bar of gold, flat internally, angular externally, twisted spirally; probably used as a finger-ring; 11 inches in diameter. It has been figured and described at p. 81. No. 185, a flat neck-torque, formed out of a rudely hammered bar of gold, with very small terminal knobs; measures 51 inches in diameter, and 1 across the opening; Wt., 3 oz. 9 dwt. 9 gr. No. 186, a circular torque, round in section of bar, perfectly plain,  $16\frac{1}{3}$  inches long, 5\frac{1}{2} wide, and 1\frac{1}{2} across the opening; Wt., 5 oz. 4 dwt. 6 gr. It was found with No. 180. No. 187, the fragment of a small twisted torque, similar to, but rather smaller in grist than No. 179; length 31 inches; Wt., 4 dwt. 19gr. No. 188, a fragment of a torque, figured and described at p. 76. No. 189, a very slender, twisted necktorque, of the same pattern as No. 179, quite perfect, with small hooked terminations;  $5\frac{1}{8}$  inches in diameter; Wt., 12 dwt. 14 gr. (Dawson). No. 190, a small torque, square in section of bar, but twisted; probably a finger-ring, unclosed; I inch in diameter; Wt., 3 dwt. 9 gr. No. 191, a penannular armlet, figured and described at p. 52. No. 192, the great Tara torque, figured and described at p. 71. No. 193, placed within the former, the massive gold ring, Fig. 574, described at p. 46. No. 194, a penannular armilla, slightly bent, figured at p. 52.

On each side of the bottom of this Tray have been arranged a collection of remarkably thin twisted neck-torques, none of them perfect; but the whole, although in numerous fragments, may be

divided into the remains of seven distinct torques. They are numbered from 195 to 207.

No. 195, the centre portion of a twisted torque; Wt., I dwt. 19 gr. No. 196, four portions of similar articles, wired together: Wt., 5 oz. 15 gr. No. 197, the end portion of a twisted necktorque, with button-shaped termination, formed of an extremely thin ribbon of gold, very curiously twisted; Wt., 5 dwt. 6 gr. figured and described at p. 75. No. 198, ditto, with small hook termination; Wt., 4 dwt. 10 gr.; figured and described at p. 75. No. 199, ditto, larger, probably about a third of its original length; hook turned backwards; Wt., 6 dwt. 10 gr. No. 200, ditto, has neither hook nor button termination; Wt., 7 dwt. 10 gr. No. 201, the end portions of a slight torque, with hocked terminations; Wt., 23 gr. No. 202, ditto, larger; Wt., 1 dwt. 6 gr.; figured and described at p. 75. No. 203, portions of torques, wired together; Wt., 3 dwt. 21 gr. No. 204, ditto; Wt., 3 dwt. 18 gr. 205, ditto; Wt., 3 dwt. 9 gr. No. 206, ditto; Wt., 2 dwt. 17 gr. No. 207, ditto; Wt., 3 dwt. 15 gr.

FINGER-RINGS—in Irish, Fainne—of gold, many of which are jewelled, have been found in Ireland in great variety, but few are of antique origin; several of them are ecclesiastical. With one exception, they are all arranged in Case F, and numbered from 208 to 257. See their detailed description at page 92. Of the more

ancient forms, the first two cuts in



Fig. 609. No. 252.

Fig. 610. No. 184.

Fig. 611. No. 227.

the annexed\_illustration are good examples. Figure 609, represented the full size, from No. 252, in Case F, is like a

ferule, fluted both externally and internally, so as to resemble seven plain rings attached together. It is open at one side, and weighs 9 dwt.\* Figure 610, drawn the full size, from No. 184, in Case E, is a five-sided bar of gold, flat on the inside next the finger, and angular externally, weighing 1 oz. 12 dwt. 6 gr. It may be denominated a torque-ring. The third cut, Figure 611, is drawn from No. 227, a comparatively modern article, evidently a bishop's ring. It is said that it originally held a very fine amethyst, which was removed by Dean Dawson, when the article was in his possession, and a piece of glass inserted in its stead. The total number of gold finger-rings in the Collection at present is fifty.

## SPECIES XI .- MISCELLANEOUS.

CIRCULAR GOLD PLATES, of which there are seven specimens in the Collection, placed in Case F, and numbered from 266 to 272, are of frequent occurrence in Ireland, an example of which is afforded by Figure 612, drawn, half size, from No. 267. They are remarkably thin, very rudely decorated, always bear a broad cruciform ornament in the centre, and are pierced with two small holes, as if for attaching them to the dress. They are often found in pairs, and were probably worn on the breast. In dimensions they vary from 1\frac{3}{4} to 3\frac{3}{4} inches, and in weight from about 2 to 13 pennyweights. That here figured is 3½ inches in diameter, and weighs 5 dwt. 18 gr. The ornamentation appears to have been effected by stamping from the back. It was found, with No. 271, near Ballina, county Mayo, and was procured for the Academy by the Rev. A peculiar interest attaches to these articles, from the remarkable circumstance related by Bishop Gibson, in his

<sup>•</sup> A precisely similar ring, but somewhat smaller and lighter, was found at Rathfarnham, near Dublin, in 1855, and was figured and described by Captain E. Hoare, as a specimen of "ring-money," in the Journal of the Kilkenny and S. E. of Ireland Archaeological Society, vol. i., N. S., p. 891, for 1856-57.

edition of Camden's Britannia, of the discovery of those described by him in 1722. Shortly before that period, Dr. Nicolson, Bishop of Derry, when dining at Ballyshannon, county of Donegal, was entertained by an Irish harper, whose song

detailed the burial in a certain place of a gigantic man, adorned with golden ornaments. To test the accuracy of the bard's narration, search was immediately made in the spot, when two thin, circular gold plates, like these under consideration, were discovered, and one of which has been figured by Gibson. Another of the same class has been represented in the

Fig. 612. No. 267.

Dublin Penny Journal, vol. i., p. 244, by Dr. Petrie, who says:—"The figures of the kings sculptured in *relievo* on the great stone cross at Clonmacnoise are represented with round plates of this description, placed upon the breast."

Among the objects of personal decoration attached to the dress, or strung on necklaces, and which have been found

great numbers in Scandinavia, particularly in Denmark and Sweden, are Bracteate medals, mostly of Grecian or Oriental origin, generally plain on one side, but stamped with a variety of devices on the other; and having a loop at top for the purpose of suspension. One such article, No. 263, in Case 2, here figured,



Fig. 613. No. 263.

the size of the original, has been found in Ireland,—probably left by the Norsemen. It is a medal of Constantine, in high preservation, plain on the obverse side, and weighing 2 dwt. 13 gr. The legend is "IMPerator CONSTANTINVS Pius Felix AVGustus," and the portrait is probably that of Constantine the First.

CIRCULAR BOXES, supposed by some to have been used

for mortuary purposes, have been occasionally found in Ireland, and are represented by two perfect specimens, and fragments of three others, in the Museum of the Academy; but the circumstances under which the former were discovered have not been clearly ascertained. Heretofore the finders of golden antiquities have endeavoured to conceal all the facts relating to their discovery, or the articles have been obtained through dealers who knew nothing of the circumstances, or from collectors, who cared merely for their acquisition and possession. But now, under the existing treasure-trove regulations, and the more general diffusion of antiquarian knowledge, it may reasonably be hoped that a better order of things will arise.

By the subjoined illustration is represented one of those boxes, one-half the natural size, from No. 275, in Case F. It is composed of three portions, two circular convex discs, of very thin gold plates, embossed with a large central ( ornament, surrounded by two rows of minor ones of the same character, and precisely resembling those on the College fibula, shown by Figure 593, page 60,—associating it with that very

Fig. 614. No. 275.

early style of Irish art, the first rudiments of which may be seen in some of the rudely incised stones in the great sepulchral monuments of New Grange. The edge is encircled with a rope-shaped fillet, beyond which the plate turns in to interlap with and affix the rim, which it holds without solder. The rim or eide is also of very thin plate, plain in the middle, but decorated near each edge by a double funiform band of the same pattern as that in the top or lid, and the extreme edges plain, and interlapping with the top and bottom plates. The side meets by an accurately adjusted but unsoldered junction, as shown in the engraving. The bottom disc, No. 274, in nowise differs from the upper in the style

of its ornament. The weight of the whole article, including the lower plate, is 19 dwt. 11 gr. It is asserted that the armilla, No. 114, in Case **D**, was found in this box. The second box, No. 277, with its bottom, No. 278, is identical in character, and presents almost the same style of ornament.

With the two torque-shaped armillæ, Nos. 171 and 172, in Case E, described at pages 53 and 79, and other similar ornaments found in the county Carlow, in 1858, were disco-

vered four thin grooved plates, two of which, Nos. 273 and 279, are in Case F, and the latter of which is here figured, one-half the real size. The fluting is as regular as if effected by machinery, and each edge is mar-

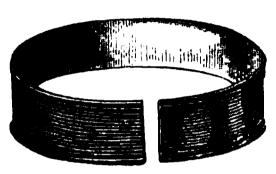


Fig. 615. No. 279.

gined by a double raised fillet, beyond which the extreme verge is very thin, and slightly everted. It weighs 12 dwt. 4 gr. These articles were at first sight believed to have been bracelets; but a more careful examination, and comparison with the rims of the circular boxes referred to above, now explains their use.

Bullæ, or Amulærs, composed of lead, and covered with highly decorated gold plates, are not of uncommon occurrence in this country. They are of two kinds,—the heart-shaped and the annular, two fine specimens of each of which are now in the Collection of the Academy, Nos. 258, 259, 264, and

265, in Case F, all of which are here represented. Figure 616, drawn, the full size, from No. 264, is plain in the body, but neatly decorated round the edge, and also at top, where it is traversed by a hole for the passage of a string, or for suspending it to a necklace. Figure 617, No. 265, one-half



Fig. 616. No. 264.

the true size, represents one of the most beautiful articles of this variety ever discovered. Internally it is composed of lead, which is surrounded by a thin plate of gold, highly decorated with a different pattern on each side. It weighs 4 oz. 14 dwt. 12 gr. The style of ornament resembles that in some of the cinerary urns, and the earliest gold ornaments found in Ireland, but is much more regular, and exhibits a better order of art and workmanship than in most of the latter. It is traversed at top by a string-hole, and the joining of the golden envelope is so accurate as not to be discernible. It was found upwards of a century ago in the Bog of

Fig. 617. No. 265.

Allen, and was procured with the Dawson Collection.

The two unclosed rings, Figs. 618 and 619, drawn, the full size, from Nos. 258 and 259, are said to have been found in cinerary urns. They are also of lead, covered on the outside with ornamented gold plates,

Fig. 618. No. 256.

Fig. 619. No. 259.

the workmanship of which is, however, inferior to that in the heart-shaped amulets. Each ring narrows towards the cleft part, and the gold plate is merely turned in all round the top and bottom, as well as at the lateral edge, in a rudely plaited manner.

Not the least curious, and as yet one of the most inexplicable specimens arranged under the head of "Miscellaneous Articles," is the hat-shaped gold plate, No. 276, in Case F, and represented, half-size, by the accompanying illustration.

<sup>\*</sup> See the description of it in the Dublin Penny Journal, vol. i., p. 180.

The plate is exceedingly thin, much crumpled, and grooved all round with circular indentations and elevations. It weighs

1 oz. 2 dwt. 2 gr.
This article, which
is manifestly imperfect, is a portion of (
the original Collection of the Academy, and is described
by Ralph Ouseley,

Fig. 620. No. 276.

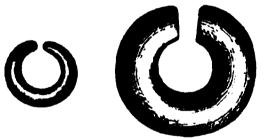
Esq., in 1795, in the Transactions, R. I. A., vol. vi., page 31, as forming one of four precisely similar articles, "quite circular, and 4½ inches in diameter, very thin, ornamented handsomely at one side, and quite plain at the other, except a kind of cap or screw, for the purpose of being affixed to a handle." They were found in 1795, near Enniscorthy, county of Wexford. Two were melted, and the others, of which we believe this to be one, were sent "for sale to the Earl of Charlemont, President of our Academy."

For the description of the other gold articles in the Museum, not previously enumerated, see the details of Case , at page 91.

Ring-Money.—Although we cannot subscribe to the general theory of "ring-money," as applicable to bronze and iron articles, referred to at page 635 of Vol. I.,—to all of which, as well as to most of the gold and silver rings, can now be assigned a plainer and more estensible use,—there are a number of small, thick, gold, penannular articles in the Collection, which may have been used merely as a means of barter, and which abound in all Irish collections. To no other use can they at present be assigned; and the fact that among them may be found several ancient counterfeits, formed of copper, covered with thin plates of gold, rather strengthens the idea that they were intended as a circulating medium. The Academy possesses fifteen such rings, arranged in a semi-

circle in Case D, together with five counterfeits, placed at its base, and also one in Case F. Those rings in the former locality are numbered from 151 to 170. In shape they are nearly all similar, and vary in diameter from § to § of an inch. See their description at page 69.

Among the sterling rings may be seen three which present peculiar characters, being crossed by a number of dark-co-loured transverse bars, which, when the specimen is in good preservation, or recently found, look like alternate rings of gold and niello, or some dark silvery metal, and give them a sort of zebra-marked appearance. On careful examination, however, with a lens, these stripes are found to consist of shallow indentations, filled with some dark material, like the black paste inserted by engravers into brass plates. In some rings portions of this material have fallen out, been worn away, or corroded: and then, the true nature of the decoration becomes apparent. The following cuts present us with four typi-





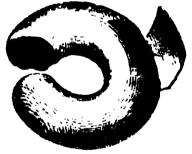


Fig. 621. No. 151. Fig. 622. No. 159.

Fig. 623. No. 160.

Fig. 624. No. 287.

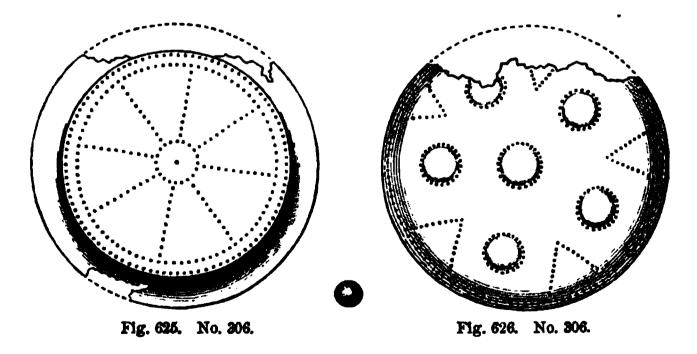
cal forms of these rings:—the small crescentic example, Fig. 621, fining off to the extremities, like Fig. 597, page 63, and weighing only 1 dwt. 12 gr.; the plain massive one, No. 159, Fig. 622, which weighs 10 dwt. 20 gr.; the striped example, No. 160, Fig. 623, weighing 8 dwt. 17 gr.; and the counterfeit, Fig. 624, from No. 285, on Case F, in which the covering-plate of gold is shown at one point turned back from the copper beneath. This latter weighs 8 dwt. 10 gr., and was —Presented by W. R. Wilde, Esq. It is very remarkable that, while the joining of this golden envelope cannot be discovered along its edge or length, it is in all instances very

rudely and ostensibly bent in and hammered over the ends of the copper, without any effort at concealment. In the sterling rings, the ends are not cut sharply off, but neatly rounded, and well finished. A comparison of the weights of these rings does not favour the arguments used by the supporters of the ring-money theory; for they not only present great variety in their weights, but do not show any scale of proportion from the largest to the least; neither are they, nor any description of so-called ring-money, multiples of twelve or of any other definite number.\*

As the nucleus of all these antique counterfeits is copper, and not bronze, and as the latter metal was not known until long after the discovery of gold and copper, it suggests the inquiry as to whether it was in use in Ireland when these penannular articles were manufactured.

The subject of ring-money will be further considered in the introduction to the catalogue of the coins and medals.

Within the last few months several rare and valuable antique gold articles have been discovered in Ireland, and are now in the Collection of the Royal Irish Academy. See pages 47, 74, and 95. Of these, No. 306, in Case E, is one of the



most remarkable. This unique article, represented two-thirds the real size by the above woodcut, consists of four very thin,

<sup>\*</sup> Sir W. Betham figured some of these rings from the Dawson Collection. See Trans. R. I. A., vol. xvii.; and also his Etruria Celtica.

circular plates, two small in front, and two somewhat larger behind; the whole joined together in the following manner: The anterior small plate, shown in Fig. 625, is 23 inches in diameter, and decorated with a wheel-shaped ornament, produced by a series of minute puncturings from behind, not unlike those seen in the circular plates, Nos. 266, 270, and 272, and of which variety of article the illustration of a typical specimen is afforded by Fig. 612, at p. 83. The edge of this plate is turned back for about one-eighth of an inch to overlap and attach it to the second plate, of same size, but plain and considerably stronger. This second plate has a large irregularly circular aperture in the middle, about seven-eighths of an inch wide, which interlaps, and is firmly united with the edges of a similar opening in the third plate. This latter is also plain, stout towards the centre, and about a quarter of an inch all round wider than the foregoing; its thin edge is overlapped by the fourth or posterior plate in the same manner as the two In both the overlapment is precisely similar to that in the bosses of the diadems described at pp. 20 and 23, &c. The fourth or posterior plate, represented by Fig. 626, is of the same size as the last, and decorated with the same form of punched ornament, but of a different pattern to that seen in the small anterior disc, and, in addition, having originally the spaces within the small circles elevated from the surrounding plate, not unlike those seen in Box No. 275 (see p. 94). the interspace between the central plates was found, when the article was discovered, a small solid gold ball, weighing 11 gr., and which is also shown in the illustration. When this curious article was recently found in the plain beneath the Rock of Cashel, county of Tipperary, the plates were crushed flat together, and there are the indentations in both the external plates of three such balls. When this article was complete, the outer plates were probably convex externally, like the lateral discs of the diadems, and these little balls may have been introduced to produce a rattle. It is now much crushed and

battered, but the anterior plate is still partially, and the two central ones altogether, united. When perfect, there must have been a deep angular groove externally between the middle plates.

The use of this curious relic cannot be determined with any degree of certainty. The very early style of art, and the absence of all cruciform decoration, leads us to believe that it was not employed for ecclesiastical purposes, but was either a toy or a personal ornament, possibly an ear-ring. For the latter object, or for suspending to the dress, a string passed round the cleft between the middle plates would suffice; and as both external plates are equally adorned, it is more likely to have been attached to the ear. Thus we see that every day produces new and hitherto unknown forms of our ancient jewellery. It weighs 11 dwt. 3 gr., and was procured under the present treasure-trove regulations, and—Presented by the Government.

Of gold chains, such as those with which Muineamhon decorated the Irish chieftains in his day (see Annals of the Four Masters, under A.M., 3872), and now very rarely discovered, we have as yet no specimen in the collection; but Lord Londesborough, in his magnificent work,\* has figured one found at New Grange, county Meath.

The total number of gold articles now in the Academy's Museum, including the additional gold ball, No. 36, A, recently procured, amounts, at this date (1st March, 1862), to three hundred and ten.

Case F contains a collection of miscellaneous articles, numbered from 208 to 309, and chiefly consisting of finger-rings, boxes, discs,

- \* Miscellanea Graphica. Representations of Ancient Mediæval and Renaissance Remains, in the possession of Lord Londesborough. London, 1857, 4to. Plate xvii., Fig. 3, a chain found along with several other gold articles.
- Mr. A. C. Welsh, of Dromore, possesses a curious pyriform plate, with a narrow stem, which may have been used as an ear-ring.—See a drawing thereof in the illustrative Collection of the Academy.

bullæ, &c. No. 208, a small gold finger-ring, decorated in front, and bearing a Maltese cross in white and dark-coloured enamel; Wt., 1 dwt. 1 gr. No. 209, ditto, irregular in shape, sides elaborately carved; sapphire stone; Wt., 1 dwt. 9 gr. (Sirr). No. 210, ditto, with large pale sapphire; Wt., 1 dwt. 18 gr. No. 211, ditto, plain, thick, with central projection, bearing a small, rudely-set sapphire (probably ecclesiastical); Wt., 4 dwt. 3 gr. No. 212, ditto, with small triangular sapphire; Wt., 2 dwt. 5 gr. No. 213, ditto, more massive, sapphire lozenge-shaped; Wt., 3 dwt. 15 gr. 214, ditto, thinner, small tourmaline (ecclesiastical); Wt., 2 dwt. 19 gr. No. 215, ditto, a long oval, sapphire small; Wt., 3 dwt. 4 gr. No. 216, ditto, sapphire heart-shaped; Wt., 4 dwt. 11 gr. No. 217, finger-ring, with carved hoop and purple stone; Wt., 1 dwt. 6 gr. No. 218, ditto, with a garnet cut with five faces, in massive setting; Wt., 1 dwt. 21 gr.; procured from county of Waterford (Sirr). No. 219, ditto, small, with large raised setting, holding an uncut pinkish stone; Wt., 2 dwt. 17 gr.—Presented by the Rev. W. Fitzgerald. No. 220, ditto, very small, plain hoop, and turquoise stone; Wt., 23 gr. Second Row:—No. 221, an antique ring, decorated with a number of knobs; Wt., 1 dwt. 8 gr. 222, ditto, hoop plain, holding an irregular-shaped uncut garnet, set clear: Wt., 1 dwt. 23 gr. No. 223, ditto, massive, battered in setting part; Wt., 7 dwt. 8 gr. No. 224, a thumb or large fingerring, the carved hoop holds an antique gem; Wt., 5 dwt. 21 gr. (Sirr). No. 225, a finger-ring, with uncut pink stone; Wt., 2 dwt. 4 gr. No. 226, a beautiful and elaborately ornamented finger ring, with massive setting, holding an uncut garnet; Wt., 2 dwt. 22 gr. No. 227, the largest ring in the Collection, figured and described at p. 81. No. 228, a highly decorated ring, beryl stone; Wt., 4 dwt. 8 gr. (Sirr). No. 229, a peculiarly formed small ring, like a seal, with three uncut stones; Wt., 3 dwt. 1 gr. No. 230, a finger-ring, with hoop enamelled in white, green, and blue, and holding four garnets set round a table diamond; Wt., 2dwt. 9gr.—Presented by the Shannon Commissioners. No. 231, ditto, small, with jet cross, and central diamond; Wt., 12 gr. No. 232, an enamelled mourning ring, with four scroll compartments, bearing the inscription, "Lord Bowes, died July 22, 1687;" he was Lord Chancellor

of Ireland, and his monument is in Christ Church Cathedral; Wt., 2 dwt. 13 gr. No. 233, a mourning ring for "Sarah King;" Wt., 1 dwt. 3 gr. Third Row:—No. 234, gold signet-ring, with monogram; Wt., 7 dwt. 15 gr. No. 235, ditto, letters I. D., and device on face; Wt., 7 dwt. 17 gr. No. 236, ditto, with skull and crossbones, and the words, "Memento mori;" Wt., 7 dwt. 19 gr. 237, ditto, large, with coat of arms; Wt., 11 dwt. 8 gr. No. 238, ditto, ditto; Wt., 5 dwt. 13 gr. No. 239, ditto, with crest and letters W. C. M.; Wt., 8 dwt. 9 gr. (Dawson). No. 240, ditto, crest, a hand and dagger; Wt., 6 dwt. 6 gr. (Dawson). No. 241, a thick gold hoop, with clasped hands supporting a heart; Wt., 6 dwt. 4 gr.; from county of Limerick (Sirr). No. 242, ditto, large, hoop plain, clasped hands; Wt., 3 dwt. 3 gr. No. 243, ditto; Wt., 3 dwt. 16 gr. No. 244, gold hoop, with crucifix; Wt., 1 dwt. 12 gr. No. 245, a decade ring, with sunken crucifix in central oval; Wt., 21 gr. No. 246, a decade ring, with cypher; Wt., 15 gr. Fourth Row:—No. 247, a plain hoop, with motto inside, "God's intent none can prevent;" Wt., 4 dwt. 4 gr.—Presented by Maurice O'Connell, Esq. No. 248, a plain ring of reddish gold, with the word "Crohan" engraved on the inside; probably of Wicklow gold; Wt., 1 dwt. 14gr. See p.5. No. 249, a hollow hoop, with floral wreath; Wt., 6 dwt. 11 gr. No. 250, a plain broad hoop; Wt., 6 dwt. 7 gr.; supposed to have been a ferule for the handle of a bronze dagger, with which it was found-Presented by Maurice O'Connell, Esq. No. 251, a decorated hoop, with cross and letters I. H. S.; Wt., 1 dwt. 7 gr. No. 252, a grooved ring or ferule, figured at p. 81. No. 253, a flat hoop, of very yellow gold, like No. 249; Wt., 6 dwt. 23 gr. No. 254, a plain thick hoop, with this inscription on inside, "Stand fast in faith;" Wt., 5 dwt. 8 gr. (Dawson). No. 255, a plain hoop, "1740, H. V. M.," on inside; Wt., 2 dwt. 10 gr. Fifth Row:—No. 256, fragment of gold ring, with three knobs, like those of bronze, figured and described at p. 563, Vol. I.; Wt., 7 dwt. 21 gr. No. 257, a curious twisted leaden ring, plated with gold, probably not Irish. No. 258, a bulla of lead, covered with gold, figured and described at p. 86. No. 259, ditto, larger, and more perfect, figured and described at p. 86, No. 260, a semicircular hollow band, of highly ornamented gold, incomplete in two portions, resembling in

form and decoration some of the silver ornaments; possibly of foreign origin. A portion of the original lead that filled the interior still remains; probably part of a head-dress; length 81 inches; Wt., 1 oz. 4 dwt. 2 gr. No. 261, a heart-shaped reliquary of gold, pierced, and highly enamelled in crimson, white, and green; probably foreign; watch-like handle and loop; length 2\frac{2}{3} inches; Wt., 1 oz. 2 dwt. 11 gr. Found at Howth (Sirr). No. 262, a highly decorated, but comparatively modern brooch, with four settings for Stones; Wt., 5 dwt. 5 gr. No. 263, a gold medal, figured and described at p. 83. No. 264, a small bulla, figured and described at p. 85. No. 265, the large bulla, figured and described at p. 86. No. 266, a thin circular plate, 3\frac{3}{4} inches wide, with central cross, and two holes, possibly for attaching it to the dress; Wt., 13 dwt. 20 gr. Its match, No. 272, is placed on the opposite end of the row. No. 267, ditto, figured and described at p. 83. No. 268, ditto, ornament raised, with small square cross in centre; 21 inches wide; Wt., 4 dwt. 17 gr. (Sirr). No. 269, ditto, the smallest in the Collection, imperfect; 15 inches in diameter; Wt., 2 dwt. 2 gr. No. 270, ditto, large, but very thin; 25 inches across; Wt., 4 dwt. 12 gr. (Dawson). No. 271, ditto;  $3\frac{1}{8}$  inches across; Wt., 4 dwt. 10 gr.; found with No. 267. No. 272, ditto, the match of No. 266; Wt., 13 dwt. 10 gr. See p. 82. Seventh Row:—No. 273, the unclosed rim of a circular box, fluted on external surface, very thin;  $\frac{3}{4}$  inch wide;  $7\frac{3}{8}$  in length; Wt., 11 dwt. 16 gr. Found with the bracelets, Nos. 90, 171, and 172, in the county of Carlow. See its fellow, No. 279, on the opposite side. No. 274, the cover of the circular box, No. 275, marked with slight circular indentations, roped round edge; diameter 25 inches; Wt., 5 dwt. 9 gr. Found with the adjoining gold box, and is evidently its lid. No. 275, a circular gold box, consisting of lateral rim, and bottom similar to the foregoing, figured and described at p. 84. In it is said to have been found the bracelet, No. 114, in Case D. No. 276, a hat-shaped piece of thin gold, figured and described at pp. 86, 87. No. 277, a circular box, similar in size and ornament to No. 275; Wt., 14 dwt. 13 gr. In it is said to have been found the bracelet, No. 115, in Case D. No. 278, the cover or bottom of ditto; Wt., 5 dwt. 7 gr. No. 279, the fellow of No. 273, figured and described

at p. 85. No. 280, a bar of wrought gold. See Fig. 580, p. 51. No. 281, a piece of thick gold-wire, bent, and cut off obliquely; Wt., 3 dwt. 12 gr. No. 282, a fragment of a massive cylindrical rod of wrought gold,  $3\frac{1}{4}$  inches in length, to one end of which a small portion has been attached by hard solder (either for the purpose of the preservation of the latter, or possibly to make the whole a certain weight); Wt., 2 oz. 12 dwt. 9 gr. It was found in the county of Kildare; procured through Mr. West, as treasure-trove, and — Presented by the Government. No. 283, a gold ingot; figured and described at p. 51. No. 284, the large skewer-shaped bar of gold, figured and described at p. 51. No. 285, a small thin portion of gold plate; Wt., 10 gr. No. 286, two small fragments of a circular embossed gold plate; Wt., 12 gr. No. 287, the small copper and gold ring supposed to represent money; figured and described at p. 88. No. 288, a small spatula-shaped fragment of gold; Wt., 16 gr. Analyzed by Mallet, and found to consist of gold, 88.72; silver, 10.02; copper, 1.11; iron, 02. Trans. R. L. A., Vol. xxii., p. 314. No. 289, four small fragments of wrought gold; Wt., 13 gr. No. 290, the large Scandinavian-shaped ring, figured and described at pp. 47 and 48. No. 291, the torque found with the former article, near Clonmacnoise. See Fig. 603, p. 74. No. 292, a thin flat plate of gold, smooth inside, grooved longitudinally on the external face like the rims of the boxes Nos. 273 and 279; it is 3g inches long, by 13 wide; lateral edges plain, without overlapments; transverse edges much worn, and angles rounded off. grooving is complete, and terminates at each extremity. examined with a lens, it would appear as if the gouge-like tool with which this grooving was effected was lifted off the plate before it was carried to the extreme edge. This peculiarity is observable at both extremities, which are equally worn, showing that the article is complete; it is stated to have been found in a curved state; Wt., 5 dwt. 10 gr. No. 293, ditto, the fellow of the foregoing in every respect, except weight; Wt., 5 dwt. 20 gr. Both these articles were found together—procured under the treasure-trove minute, and—Presented by the Government. They are too short to have been used as the rims of boxes, and certainly bear no marks of having been cut or fractured; they are too thin to have retained

the annular position as finger-rings. They are stated to have been found in the county of Tipperary, in the present year. Nos. 294 and 295 would appear to be portions of the same article, and to be identical with the box-rims, Nos. 273 and 279, the latter of which is figured at p. 85. Although apparently parts of the same article, the recently cut terminations do not match, a very small portion having been removed, the incision was quite recent when the articles were procured under the treasure-trove minute, and—Presented by the Government during the present month, February 1862. Each plate is plain on the inside, and grooved externally with an everted edge or overlapment, for attaching it to the turn-over of the top and bottom of a circular box, like No. 275, figured on p. 84. They are somewhat thicker towards the cut extremities (originally the middle) than at the other ends. A close examination of the termination of the grooving on these incomplete plates shows at once the difference between it and that in the two foregoing articles. Each plate is 4 inches long by 18 wide; when joined, they form a box-rim of the average size. The former weighs 6 dwt. 21 gr., and the latter 6 dwt. 10 gr. Nos. 296 to 305, a row of nine cylindrical beads, each formed of a fragment of thin plate of gold, rudely rolled upon itself, the row measuring 5 inches. Five are plain on both sides, and four grooved on the outer face, like Nos. 292 and 293, and are, most likely, fragments of similar articles. They may have been ferules for double conical beads, like that figured and described at p. 36; or they may have been worn with other trinkets on a necklace, or strung between amber beads. They somewhat resemble the row of cylindrical beads numbered from 42 to 47, in Case C, but are much ruder. In their present state they cannot be regarded as perfect; for the age and style of art which was capable of executing the minute and precise grooving on the surface of some of them would scarcely have left them in their present condition. The set weighs 5 dwt. 6 gr. No. 306, the curious quadruple set of circular plates figured and described at p. 89. See Figs. 625 and No. 307, a penannular armilla, with cup-shaped terminations; bar cylindrical, thick in centre, and tapering towards extremities; very perfect; 23 inches in long diameter of oval; Wt., 1 oz. 2 dwt. 9 gr. No. 308, ditto, smaller, in fine preservation,

with goblet-shaped terminations, like No. 111 in Case D; bar cylindrical: encircling the edge of each cup is a slight fillet, which is worn away externally, showing that the article was there long subject to friction;  $2\frac{1}{2}$  inches in long diameter; Wt., 18 dwt. 15 gr. No. 309, ditto, bar cylindrical, and of equal grist throughout. It presents the rare peculiarity of having shallow oval cups, which are also partially unclosed at the bottom. The edges of the cups are very thin, and somewhat battered; measures  $2\frac{5}{8}$  inches in long diameter; Wt., 16 dwt. 8 gr. These three armillæ were found on the plain of Cashel, county of Tipperary; and, with Nos. 296 to 306, were procured under the treasure-trove authority, and—*Presented by the Government*.

In the enumeration of the various presents and tributes given in the Book of Rights, we read of gold-adorned shields and swords, of gold-trimmed cloaks and tunics, of "rings of red gold"—failgibh derg oir; and in one instance we find an entry of "a javelin with its mounting of wrought gold," as having formed part of the tribute to which the Chief of the Gaileanga, in Meath, was entitled. Even chariots were decorated with gold; and among the gifts said to have been offered to St. Patrick and his attendants was a "screapall for each man,—an ounce of gold." When the Ultonian King of Emania visited the chief monarch at Tara, the latter was bound to present him with "the full breadth of his face of gold;" probably a mind or lunula. And, again, the King of

<sup>\*</sup> See also the Annals of the Four Masters, under A. D. 9, in which the wonderful jewels of Crimhthann are enumerated. Among these was a golden chariot, a golden chess-board, a gold-embroidered cloak, and "a conquering sword with many serpents of refined massy gold inlaid in it."

<sup>† &</sup>quot;Screapall, a coin used by the ancient Irish, weighing 24 gr., and of the value of three pence." See O'Donovan's translation of the Book of Rights, p. 228, n., and Petrie's Round Towers, in Trans. R. I. A., vol. xx., p. 216; also Annals of Four Masters, under A. D. 1153.

<sup>‡</sup> A. D. 1004. Brian Boroihme left twenty ounces of gold as an offering on the altar of Armagh. By some commentators this mass of gold is said to have been in the form of a ring.—Ann. Four Masters.

Ui Gabhla was entitled to a ring of gold upon every finger; and a ring of gold, bright from the fire, was due to the fair King of the Forthuatha," in the territory of Imaile, in which the Church of Glendalough, in Wicklow, now stands. "Rings," in all likelihood of gold, and of different patterns, like those unclosed armillæ in the Academy's Collection, are frequently mentioned among the gifts and tributes presented to different other chieftains or petty kings, in return for the cattle-tax and refection for the troops of the provincial kings. rings in other places are described as of "red gold," probably denoting the purity of the metal, "Drinkinghorns on which is gold" are likewise enumerated in that remarkable work, to which reference has been frequently made in Vol. I. All these entries show the great amount of and the variety of purposes to which this precious metal was applied in the early days of barbaric splendour, and which the discoveries of subsequent times proves to be correct. See also the description and illustrations of the beautiful gold-covered bronze plates, given at pages 574 and 575, of Vol. I. The Druidic idols of the Pagan Irish are said to have been covered with plates of gold. The various shrines of early Christian times were adorned with this most precious but abundant metal; and the chalices and church furniture and decorations were of such splendour as to invite the plundering Norse across the wildest seas, and to have excited the cupidity of the Irish chieftains and their followers.\* When, in addition

<sup>\*</sup> The following extracts from O'Donovan's translation of the Annals of the Four Masters serve still further to illustrate this subject :—

A. D. 796. "The relics of Ronan, son of Bearach, were placed in a shrine of gold and silver."

A. D. 949. Godfrey, son of Sitric, with the Danes of Dublin, plundered Kells, and carried off "three thousand persons into captivity, besides, gold, silver, raiment," &c. Also An. Clonmacnoise.

A. D. 998. O'Melaghlin and Brian, son of Ceinneidigh, carried off the gold, silver, and prisoners of Dublin.

A. D. 1006. The great Gospel of Columbkille, or Book of Kells, was stolen from

to all these notices, we review the amount of gold procured by the Academy within the last thirty years, and of which only a few typical specimens have been engraved in this work; together with those preserved in the Londesborough and other Collections; and glance at the various records in different books, periodicals, and newspapers,\* of articles long since lost to antiquarian investigation, and others known to have been melted down;—we think it must be acknowledged that we have established the position with which this section of the Catalogue was commenced, that no other country in Europe possesses so much manufactured gold belonging to early and mediæval times as Ireland.

Having in the foregoing pages enumerated and described the various gold ornaments which have been acquired by the Royal Irish Academy, and also endeavoured to establish the native origin and manufacture of these articles, it is with considerable diffidence that the author ventures to dissent from the opinion of the late President of the Academy, that "Geology assures us that there are no auriferous streams or veins of gold in Ireland, capable of supplying so very large a

the sacristy of that place. When discovered, it was found that the gold of its cover had been removed.

A. D. 1020. Armagh was burned by the Danes, with "much gold, silver, and other precious things."

A. D. 1129. The Church of Clonmacnoise was robbed, and among the stolen articles were several adorned with gold.

A. D. 1151. See page 7 of this Catalogue. For ten ounces, read "ten score ounces of gold."

A. D. 1157. At the consecration of Mellifont Abbey, in Louth, Murtagh O'Loughlin "presented seven score cows, and three score ounces of gold;" O'Carroll also "gave three score ounces of gold;" and Dearvorgil, the wife of O'Ruairc, "gave as much more, and a chalice of gold."

A. D. 1189. Hugh O'Conor gave Donnell O'Brien ten articles ornamented with gold.

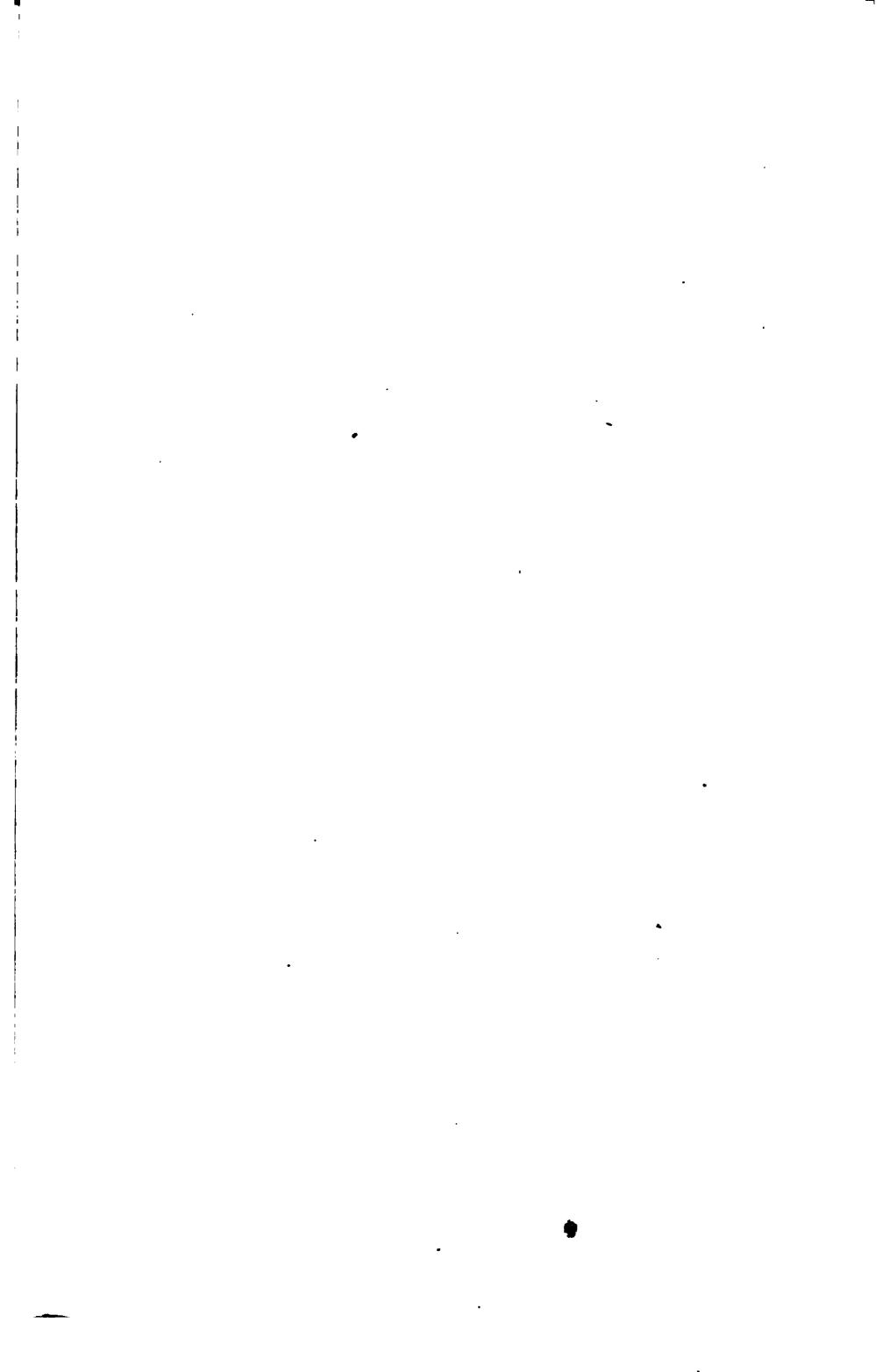
\* It is the author's intention to publish in the Proceedings a chronological account of the various Irish gold "finds" to which reference has been already made in the note at page 4.

mass of gold"\* as would be required to furnish all the ornaments of that metal found at different times throughout the country, and a portion of which is now in the Museum. As already shown at page 4, geology proves that there are no less than seven localities in which gold has been found in Ireland; and the fact that upwards of £10,000 worth of gold was procured within a few weeks from one of these localities within the last eighty years, as already described at page 355 of Vol. I., and that in the very place where the annalists of old state that gold was first smelted and manufactured into ornaments, is conclusive, as regards those geological and historic objections. An examination and comparison of our own with the native antiquarian collections of other European countries confirm the opinion that the gold ornaments discovered in Ireland possess a special character, not found elsewhere.

It has been asserted that the gold of which our Irish ornaments are composed was brought from India by the nomad Kelts who finally settled in Ireland; by some it is supposed that it was procured from Gaul; and by others that it was imported from Spain by the Milesian colonists. Others, again, imagine that it was derived from Africa;—in fact, our manufactured gold has been assigned to every gold-producing country in the world of ancient times, but our own. Again, it has been fancied that these gold ornaments found in Ireland are of Phœnician, Carthaginian, Greek, Hebrew, and even Danish origin; but as none of the asserters of these theories have offered any tangible exposition of them, it is here unnecessary to discuss their merits.

<sup>•</sup> See Rev. Dr. Todd's Presidential Address, in Proceedings for April 14, 1856, vol. vi., p. 826.







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# A DESCRIPTIVE CATALOGUE

OF

# THE ANTIQUITIES

OF

## ANIMAL MATERIALS AND BRONZE

IN THE

Museum of the Royal Irish Academy.

BY

W. R. WILDE, M.D., M.R.I.A.

Allustrated with Three Pundred und Sebenty-seben Wood Engrabings.

## **DUBLIN:**

HODGES, SMITH, AND CO., GRAFTON-STREET.

LONDON: WILLIAMS & NORGATE, HENRIETTA-STREET, COVENT GARDEN.

1861.

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Spurs,						•				•		•	•		•	•			600
Saddle Pommel						•	•	•	•	•	•	•		•	•	•			602
Stirrups,	•				•		•	•	•	•	•	•	•	•	•	•	•	•	603
Bridle-bits,				•		_	-	•	•		•	•	•	•	•	•		•	605
Bridle-pendants								_	-	•	•		_	•	•	•	_		608
Harness-studs a								•	•	_	•	•	•	•	•	•	•	•	611
Crotals,							•	•	•	•	•	•	•	•	•	•	•		612
Musical Instruments,								•	•	•	_	•	•	•	•	_	•	•	623
— Trumpets,				•			•	_	-	•	•		•	•	•	_	•	•	623
Ring-money,				•	•	•	·	•	•	•	•	•	•	•	•	•	•	•	685
Miscellaneous Articles		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	636
Trumpet-pattern Disl	•	•	•	•	•	• -	•	•	•	•	•	•	•	•	•	•	•	•	
Ornamental Figures,																			
ATHERNORMY TAKENDO	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•		•	บอษ

### CLASS IV.—ANIMAL MATERIALS.

EASTERN GALLERY, CASE III., AND WESTERN GALLERY, COMPART-MENT I.

THE foregoing sections we described the composition and localities of the different rocks out of which man fashioned his earliest tools and weapons; the earthen materials wherewith he decorated his person, formed culinary implements, or preserved the remains of the dead; and also enumerated the different trees and vegetable substances from which our early people formed their boats, paddles, mills, kneading-troughs, and drinking vessels, &c. This division of the Catalogue commences with a short notice of the native animals which ministered to man's necessities, or contributed to his amusements, in early times.

Man in his primitive state, depending almost solely on flint, stone, and wood, for his tools and weapons—the remains of which abound in Ireland, and are typified in the first and third sections of this Collection,—must have been originally, in a great measure, a flesh and fish-consuming animal. And it may naturally be inferred that he employed the hard bones as well as the softer horns and the flexible skins and warm furs of the creatures he slew, in the formation of weapons, tools, clothing, household utensils, and personal ornaments, as his wants required, or his ingenuity suggested. In the process of civilization he either tamed some of the wild animals, or introduced domesticated specimens from other countries. With those animals that may be considered pre-Adamite, we do not pro-

fess to deal,—they belong rather to the province of the geologist and palæontologist than to that of the antiquary; still the line of demarcation has not yet been accurately defined. Recent investigations tend to prolong chronology,—to extend farther back, towards the dawn of time, man's existence on the earth,—or to advance into coeval occupation with him many animals heretofore believed to have preceded him by centuries. Having described the different Irish animals associated with man, in the Proceedings of the Academy, vol. vii., p. 64 and p. 181, it is here unnecessary to do more than enumerate them.\*

Of the ancient Fauna of Ireland, we as yet possess but imperfect knowledge. Among the larger carnivora was the bear, in Irish mathghamhain, probably the brown bear of northern Europe, and which existed in Scotland until the year 1057. Although said to be remembered traditionally, we have no historic reference made to it in any of our records. The majority of the bears' skulls discovered in Ireland show that the animal was of rather a small size, although the great cave bear coexisted here with the mammoth. The wolf, called in Irish cú allaidh, or the wild hound, and occasionally styled in the manuscripts mac tire, the son of the soil (filius terræ), remained among our highland woods and caverns until the beginning of the last century. The ancient dog, or cú, usually called the Irish greyhound, and believed to have been employed in chasing the deer, or exterminating the wolf, may be said to have passed from amongst us. The fox, sinnach, or madradh ruadh, the red dog; the badger, broc; the otter, dobhar-chú, or water hound; the martin, or tree dog, madradh crainn; the stoat and weasel, blánait, or easóg; and the wild and domestic cat, or cat garman, include nearly all the carnivora of Ireland in early times. To this list may be added the seal, or rón, which abounds upon our coasts.

<sup>\*</sup> See also the Author's Papers upon "The Food of the Irish" in the Dublin University Magazine for 1854.

Of the deer tribe, our gigantic Irish Elk, the Cervus megaceros was the noblest animal of its class of which we have any remains, but whether it coexisted with man is a mooted question. We have no Irish name for this extinct animal. That a small and probably degenerated variety existed with the human race in Ireland, may be assumed from the circumstance of the remains of one being found in peat overlying the clay; and others possibly may have been discovered in similar situations. (See Proceedings, vol. vii. p. 198.) The red deer, fiadh ruadh, was evidently the animal of this class that abounded most in Ireland, and was the chief object of the chase. Other varieties of the deer kind were, no doubt, to be found in great quantities during the middle ages; but it may be questioned whether they had not been introduced about that time. We had the sheep, caóra, and the goat, gabhar, at a very remote period, the former being many-horned. Oxen, daimh, were undoubtedly to be found in the greatest abundance, and of the finest breed in Ireland, from the earliest period to which our histories refer, and were probably long antecedent to man's occupation of the island.\* The horse, capall, or each, was coexistent with the elephant; and the wild boar, torc fiadhain, abounded in our woods up to a comparatively recent period. The hare, called in Irish gearr-fiadh, "the short deer," and occasionally miol-muighe, or "the animal of the plain," and the rabbit, coinín, were also co-occupiers of Ireland with man at a very early period.†

Numbers of localities in Ireland, as well as persons, derived their names from animals, or from historic circumstances connected with them. The chief wealth of this island has ever

<sup>\*</sup> One of the oldest lists of the Animals of the British Isles is to be found in an Irish Poem in the Academy's Collection of MSS (S. 149); and a prose description thereof is related in the Book of Lecan. Mr. Curry thinks the original poem was written in the ninth century. See the transcript and translation of it in the Proceedings, vol. vii. p. 184.

<sup>†</sup> See the Author's Paper on the "Ancient and Modern Races of Oxen in Ireland," in the Proceedings, vol. vii., p. 64, also p. 209.

lain in its cattle, and our annals abound in notices of epizootics that from time to time raged among the lower animals. Barter was chiefly carried on by means of sheep and oxen. The tributes paid by chieftainries or kingdoms were, for the most part, in cattle; and several of the feuds that prevailed in early times originated in cattle raids, and usually ended in the stronger party abducting the flocks and herds of the weaker.

The next question for consideration is, how far the ancient animals of Ireland contributed materials for those manufactured articles, which, under the head of "Animal Materials," our Museum presents. It is the largest collection of its kind in any country in north-western Europe, and contains specimens of bone, horn, skin, hair, fur, wool, gut, and even wax, as well as of food, such as butter, cheese, &c.

One of the earliest uses of horn among the primitive inhabitants of Europe appears to have been contemporaneous with, and subsidiary to, the use of flint and stone. And, although we do not as yet possess any specimens of horn to illustrate this assertion, our Museum contains fragments of flint (see Rail-case A), and also small stone celts, which, judging by analogy with their ascertained uses in other parts of the world, must have been fixed in portions of stag-horn, most probably those of the red deer, in the following manner:—A piece of the hornbeam, from 5 to 8 inches in length, cut or broken off, generally where a tine sprung, so as to give it greater breadth, was hollowed artificially for the insertion of a fragment of flint or small sharp stone celt, which was then driven into the broad part and fixed there either with wedges or cement, or fastened with thongs. Sometimes the horn was perforated across the centre for the passage of a handle formed of some tough, hard wood, such as oak, yew, ash, or blackthorn. It thus formed an axe, pick, or adze, according to the shape and direction given to its cutting edge. The majority of these small tools were, however, held in the hand, and had not flexible handles. Occasionally the horn tine had the celt inserted at right angles to it, and thus formed both handle and socket.

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This was, perhaps, one of man's earliest manufactures: a weapon-tool equally formidable in the former, or serviceable in the latter capacity. Several such pieces of horn are to be found in the native collections of north-western Europe, extending from the Danube to the highest inhabited limits of Sweden and Norway; and their use has been for a long time more than a matter of conjecture, but until lately very few specimens with the attached flint or stone blades have been discovered. The Swiss crannoges, especially those in the Bodensee, have, however, afforded so many examples of such within the last few years, as completely to clear up the mystery; and two of these are here figured, one-fourth the natural

size, from unpublished engravings of the work of Professor Lindenschmit, of Mayence. As yet none of these horn implements have come to light in Ireland, although we possess the stone blades in large quantities. In Mr. Murray's Museum at Edenderry there

Fig. 161.

are some bone implements of a different description, through which handles were evidently passed, and which served as picks or axes like

Fig. 180. those found in Jutland, and preserved in the Copenhagen Museum of Antiquities.†

By permission of Mr. Murray, the following illustration, Fig. 162, is drawn from the most remarkable of these Irish bone axes. It is 8 inches long, and was found 7 feet deep on an ancient wooden togher or road in Ballykillen bog, barony

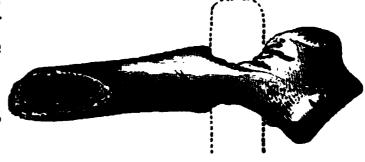
<sup>\*</sup> See " Die Alterthümer unserer heidnischen Vorzeit."

<sup>†</sup> See the last edition of Worsaac's "Nordisks Oldsager," 1859, pl. 14.

Since the publication of Part I. of this Catalogue, a stone ceit in a wooden handle was discovered in the Solway Moss, and is now in the British Museum. See "Proceedings of the Royal Society of Antiquaries," vol. iv. p. 112.

of Cootestown, King's County, along with the flint arrow-head figured at p. 254.\* The sharp cutting edge at the

small extremity was formed by breaking or cutting off the bone obliquely, like the end of the horn tine, Fig. 168, at page 260.



The foregoing illustrations Fig. 162. explain articles in the Academy's Museum, the uses of which could not, without them, be properly understood.

The more we study man in his primitive simplicity, and collect examples of his arts, as still existing among savage people, the more we are driven to the conclusion that in certain phases of life and states of progress, he acts as if by a common instinct or impulse to fulfil the like purposes, provide for the same necessities, and prompted by similar desires, to follow the same stages of development, merely modified by climate, the natural productions of the country he inhabits—and by race; the latter influence coming into play as he rises from the self-supporting nomad to that condition where men live in community, and depend upon each other, not merely for the luxuries, but the necessaries of life.

The deciduous solid horns of the deer tribe formed tools and weapons, and handles for all manner of implements, and were also employed in the manufacture of personal decorations; while the cuticular horns of the hollow-horned ruminants were applicable to many purposes, but were especially used for drinking vessels. It is strange that, compared with other countries somewhat similarly circumstanced—as, for instance, Scandinavia and northern Germany—so few of these vessels have come to light in Ireland. The great Kavanagh Horn in

\* Geo. V. Du Noyer, M. R. I. A., presented to the Academy a valuable portfolio of drawings of objects in the Edenderry Museum, containing those of Figs. 162 and 164. (See Proceedings, vol. vii. for January, 1860.) The Author is much indebted to Mr. Murray for having forwarded, for his inspection and description, the bone-pick figured above, and the arrow-head given at page 254.

the Museum of Trinity College, although in the shape of the horn of an ox, is made of an elephant's tusk; and the Dunvegan cup (a work of Irish art already alluded to at page 114) is shaped like a mether, which was probably always the fashion of the Irish drinking vessel, as well as at the time when that particular article was made. Moreover, our oxen were nearly all short-horned, and did not afford materials out of which large drinking-horns could be manufactured similar to those found in the countries alluded to.

From the very earliest period down to the present day, man has availed himself of the skins of animals for various useful purposes, and soft, warm furs were used, as now, either for covering or decoration. Such peltry was procurable from several of the animals enumerated. The skin of the deer formed, perhaps, one of the earliest garments used by the natives of this country, and cow-hide, in either a raw or manufactured state, appears to have been very early employed for all purposes of household economy, wearing apparel, and horse-trappings. When letters were introduced, our numerous goats afforded the parchment that has embalmed the annals of Irish history, and the emblazonment of Irish art. Horse-hide and calf-skin covered our books, and leather formed satchels for our MSS.\* The hair both of horses and goats was matted or woven into textures, either employed as coverings, or used as fringe for various decorative purposes: of which we possess an example in the Collection (see Fig. 188, page 295). Finally, wool became the chief material for man's clothing, long prior to the introduction of flax.

From the hard, long bones of quadrupeds were formed weapons, tools, and handles for both classes of implements; also fibulæ, pins, needles, piercers, bodkins, spindle-knobs, combs, draught and chess-men, musical instruments, and surfaces upon which was exercised the engraver's art. Besides the various

<sup>•</sup> See in particular the beautiful embossed leather satchel or case of the Book of Armagh, now in the Library of Trinity College, and figured in Petrie's "Round Towers," p. 829.

purposes to which bone was applied, and of which we possess illustrative specimens in the Museum, was that of the dart or arrow-head, shown in the accompanying illustration (Fig. 163), taken from a very perfect specimen in the Museum of Professor Nilsson at Lund,\* and which is here introduced in order to



Fig. 163.

explain the uses of that large collection of small, thin, narrow flint-flakes, now preserved in Rail-case A (see also page 10), and the uses of which could not otherwise be understood. A smooth, sharp-pointed piece of bone, about 6 inches in length, was grooved on each side to about a quarter of an inch in depth. Into each of these grooves was inserted a row of fine, sharp-edged, and slightly-curved bits of flint, and fixed there by means of cement. The instrument thus armed was fastened to the end of a shaft of wood, which could either be thrown by the hand or projected by the bow-string.

Possibly some of the sinews, but certainly the intestines of animals, cleaned, twisted, dried, and oiled, were extensively employed in sewing, as well as for various other purposes to which twine and thread are applied in the present day. Both thong and gut probably assisted our primitive people in the construction of the sling. In the Edenderry Museum there is a flint arrow-head, remaining in a part of its briar-wood shaft, with a portion of the gut-tying still attached—as shown in the annexed engraving, reduced one-half the natural size, and here figured by permission of its owner, Mr. Murray. It was Fig. 164. found, with the bone pick (Fig. 162), in Ballykillen bog, King's County.†

<sup>\*</sup> See "Skandinaviska Nordens Ur-Invanare," 1843. A new edition of this work is in the press.

<sup>†</sup> This rare specimen, as also the bone pick figured at page 252, were exhibited at a meeting of the Academy on the 27th of February, 1860. See Proceedings, vol. viii. See also Mr. Du Noyer's portfolio, already referred to.

While the muscular flesh and cellular tissues afforded food, no doubt the fats were melted down, and served for the lamp that hung in the rude dwelling of the peasant, or the banquethall of the noble. At the banquets of the ancient Irish, special parts of the slaughtered animals were apportioned to particular classes; of which fact we have a notable example in the description of the feast in the *Teach Midhchuarta*, or great banqueting-hall of Tara, given by Dr. Petrie in vol. xviii. of our Transactions.

Of the remains of such cetaceous animals as frequent our coasts, we possess only one specimen—an engraved book-cover formed out of the blade-bone of a whale, deposited in the Museum by Joseph Huband Smith, A.M. The mildness of our climate, and the great fertility of our soil, as well as the fact of our woods affording such abundance of game, and the rivers and inland lakes abounding in fish, may account for the circumstance that no antique implements of the harpoon class have yet been found in Ireland. The incinerated bones of birds have been found in urns and tumuli; and recent manufactured specimens may be seen in the Museum.

Of fish, as an article of food, we have frequent mention, especially salmon (eo, bradan, or maighre), which, according to the earliest annals, abounded in our rivers, particularly the Boyne; but fish-bone does not seem to have been employed in the arts by our ancestors.

Bees, beacha, were cultivated in Ireland so extensively, and at so early a period, that a large portion of our ancient Brehon laws is devoted to providing for their care and preservation; and their waxen products, found in square masses, and in the form of candles, have been discovered under circumstances which leave no doubt as to the great antiquity of such articles.\*

The nature of the materials presents some difficulty in grouping all these articles, composed of animal substances, ac-

<sup>\*</sup> Giraldus Cambrensis states that the abundance of the yew, and the winds and rains in Ireland, injured the bees.—Book 1., chap. v.

cording to the secondary division of this Catalogue, for the uses of some are still undetermined, yet, with a few exceptions, they can all be brought within the limits of the classification which has been adopted. All the manufactured articles of bone and horn, except a few in Rail-case H, have been attached to two large Trays, A and B, at the extremity of the Eastern Gallery; to Tray C, in the first Compartment of the Southern Gallery; and to the "Find Trays," A, B, C, in the Southern Compartment of the ground floor of the Museum.

The great object and value of an antiquarian collection is to fill up that blank in history, which, while telling of cosmical phenomena, political events, religious procedures, invasions or expeditions, wars, battles, and famines, the feuds of tribes, or the personal revenge of chieftains, has left the social history of primitive man a still unwritten page. These substantial memorials of the past illustrate, with unerring certainty, that history, by revealing man in his domestic life, his manufactures, dress, decorative arts, and household economy, from the earliest times. As such, they cannot fail to assist the future Irish historian to draw pictures of society at those epochs to which they are referable. It must be borne in mind that there is a long period in Irish history undescribed by any annalist, in which the rath, the cromlech, and the stone sculptured monuments, the terra-cotta urn, the golden ornament, the flint, stone, and bone weapons and tools, and the early copper and bronze articles of the same class, were common—but of which no historian has made mention. Of this Pagan period there is no written history, and it is only by a careful study of the still existing monuments throughout the land, and of the articles in a collection such as that of the Academy, and by comparing them with kindred objects in other countries, that we can form any conjecture as to the social state of Ireland during the Druidic or pre-Christian period. It is not too great a stretch of imagination to suppose that, as our early annalists were Christians and ecclesiastics, they left unrecorded all notice of the

religion that it was their object to obliterate, and all records of the habits of a people among whom they were missionaries; merely preserving the genealogies of kings, with notices of the battles, eclipses, plagues, &c., derived from the bards that supplied them with their only means of information.

### ORDER I.—BONE, HORN, &c.

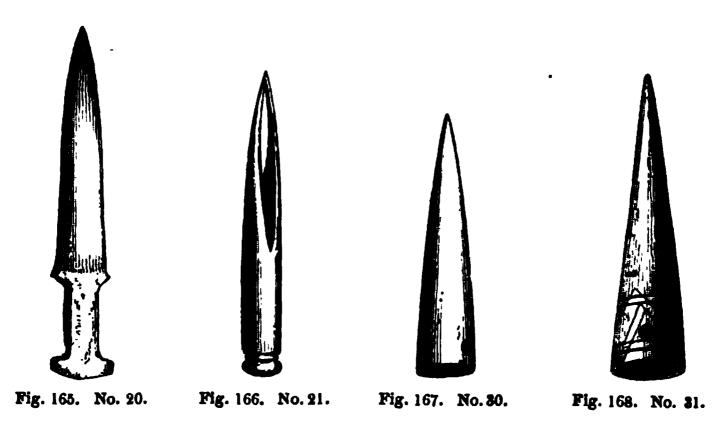
#### SPECIES 1 .- WEAPONS.

ALL flesh-eating people, in the rudest states of society, and before they arrive at a knowledge of metal, have at hand ample materials for forming weapons either for war or the chase in the long bones of animals, which, by being broken obliquely, scraped by a sharp flint, or rubbed down on a hard, rough-grained stone, could be easily fashioned into daggers, and, by means of their central cavity or narrow hole, fastened on sticks or poles, so as to form darts or spears formidable to either man or beast. But the great length of time which has elapsed since such objects were used precludes the possibility of many of much antiquity remaining to the present day. Still, one of the oldest specimens of Irish handicraft in the Museum is the bone fibula figured and described at page 183, and which was undoubtedly an object of much value either anterior to, or at a time when the people of Ireland practised cremation and urnburial, and were apparently unacquainted with metal. few bone weapons which we possess were probably made and used by a people who lived when and where metal was known, but to whom such was not always accessible; in the same way as pins and fasteners of bone were employed by the poorer classes contemporaneously with the use of the same description of articles of bronze or silver by the wealthier and higher ranks.

Subsequent to the introduction of metal, bone and horn were employed, as occasionally in the present day, in forming handles and ferules for swords and daggers, &c. Next to

wood and sharp-edged stones, the bones of animals presented to man, in his half-civilized state, the most suitable material for such weapons as daggers and the heads of spears, darts, and arrows, &c.

DAGGERS AND SPEARS.—The top row of Tray A, in the End-case of the Eastern Gallery, consists of forty articles of bone or horn, the majority of which are evidently weapons or tools. One of the most remarkable specimens is the central



object, a bone dagger, No. 20, shown in the foregoing cut (Fig. 165), and formed out of the leg-bone of one of the large ruminants. It is  $10\frac{1}{15}$  inches long, of which the rough handle is only  $2\frac{1}{2}$ ; thus confirming the opinion (deduced from the size of the hafts of our bronze swords) that the hands of the race who used them were very small. The blade is smooth, and brought to a very fine point. This unique specimen was found in the bed of the River Boyne, a short distance below Clonard, in the townland of Ballyronan, county of Kildare, "on hard blue clay, four feet under sand, along with some stone spear-heads of about 9 inches in length, and half an inch in thickness." It and No. 21 (Fig. 166) were—Presented by the Board of Works. See Proceedings, vol. v., Appendix, pp. 35 and 54.

No. 21, in the same row, on Tray A, is a bone spear-head

of a dark-brown colour, 9\frac{2}{4} inches long, and about 1\frac{1}{4} in diameter (see Fig. 166). It also was found 4 feet below the bottom of the river at Ballyloughlan, barony of Kilcoursey, King's County. It appears to have been formed by cutting off obliquely a portion of one side, and is traversed by rivet-holes for securing it to the handle. Nos. 30 and 31, Figs. 167 and 168, shown by the accompanying illustrations, are circular conical spear or arrow-points, and belong to the same class of weapon, but are smaller than No. 21. The latter (No. 31) is decorated with a chevron pattern like that on some of our oldest cinerary urns and gold ornaments, &c. They were manifestly fastened to handles of some description, as the sockets and rivet-holes still remain. The first is 2\frac{1}{2}, and the last 3 inches long.

The handles of metal daggers and swords were partially formed of bone and horn, as shall be explained under the head of "Bronze Swords."

The antique shields of all early nations are, owing to the perishable materials of which they were composed, of great scarcity. Those belonging to the early Irish, and to which reference is made in our histories, were circular, and probably constructed partially of leather and wicker work, but as yet no vestiges of any such have been discovered.

#### SPECIES II.—TOOLS.

Picks and hammers composed of bone and horn, like that figured at page 252, have been discovered in Scandinavia; but one of the most primitive implements of this description which has yet come to light in Ireland is a hornbeam of an immense red deer, not shed, but apparently artificially worked off below the crown, see Fig. 169 on the next page. Its small extremity has been sharpened by some clean-cutting instrument, probably metallic. It is twelve inches long, is of great density, weighing as much as nineteen ounces, is of almost stony hardness, and the cancellated structure is filled with carbonate of lime to a greater extent than ever occurs in the living bone. It has, in fact,

undergone, to a considerable extent, the process of mineralization,—certainly far more so than we find in many specimens of the great Irish fossil deer; and as it was evidently worked by the hand of man prior to the commencement of its chemical alteration, it shows us to what a very remote period we may with safety refer it, and some of the tools and weapons which modern investigations have brought to light in other coun-

tries. This very rare specimen of a wrought mineralized bone, was found deep in the excavations made in the River Shannon, on the north side of Banagher Bridge in 1843, and was—Presented by the Shannon Commissioners. See No. 1, in Railcase EL.

The numerous fragments of bone and horn found in crannoges and street cuttings, show how much these materials were used in the arts. Many tips of deers' horn in the collection are evidently the sawn-off ends of portions used, in all probability, in forming handles to swords, knives, daggers, and tools of various sorts; but others are decorated, and some perforated either at the end or at one side, so that they were evidently employed for some distinct purpose. Besides the well-determined weapons described and figured at page 258, we find in this Collection a number of handles of bone and horn, and a few of ivory, for affixing to tools and food-implements. Some of these hafts are not inele-

Knives (in Irish, sceana), being employed for a greater variety of purposes than any other implement in either ancient or modern times, and being used indifferently as weapons, tools, and food implements, might with propriety be placed in any of the three first species in the Classification adopted in this Catalogue; still, they find a more appropriate place among the Tools. We find two kinds of knives here: in one the animal material is employed in the construction of the han-

gantly decorated, particularly Nos. 2, 10, and 14, on Tray A.

dles only; and in six of these articles on Tray A, from Nos. 11 to 16, small iron knife-blades, evidently of a very rude construction, and ancient fashion, are still fixed. The second variety is formed altogether out of bone, such as Nos. 8, 9, and 10, on Tray A, and No. 319, on Tray B; No. 10, which is 8 inches long, and highly decorated on the handle, and a portion of the blade, is represented by the accompanying wood-cut, Fig.

170. It was found with a great many other specimens of manufactured bone in the Ballinderry



Fig. 170. No. 10.

crannoge, county of Westmeath. Crannoges have, indeed, been the chief source from which have been collected most of those small implements connected with ancient household economy, domestic use, or personal decoration, contained in the Academy's Collection, and preserved either under the head of "Animal Materials," or kept together as types, among the "Finds" hereafter to be described. The soft substance which formed the substratum of these lake-fortresses, as well as the circumstance of many of them having been rifled of their more precious contents, or remaining uninhabited for years, until the waters rose above their surface levels, may account for the preservation of such a number of these small articles. Crannoges were also small towns or villages, in which, no doubt, the artisan plied his trade with greater security than he could upon the mainland. From street-cuttings, or excavations made for sewage, &c., in the city of Dublin, numbers of small bone and horn articles have been obtained.

To the top row of Tray A have been affixed several curved tines of stags' horns, some hollowed at the base, and all bearing the marks of having been artificially pointed. Similar objects,—tools, or weapons in either a rude, partially worked, or finished state,—are of frequent occurrence in crannoges and street-cuttings. In length they vary from 2 to 8 inches. Nos. 36, 37, and 38, are skewer-like pieces of bone, rasped

sharp at both ends, and somewhat resembling the Collection of wooden pins described at page 200.

Upon Tray B has been arranged another collection of these bone-tips (see Nos. 1 to 32). Nos. 22 to 26, inclusive, are flattened and notched on the concave surfaces, of which No. 24, here figured one-half the natural size, affords a good example.

As to what their use may have been—whether as guards to the finger in straining the bow-string, or like those employed in the present day by hatters for chucking the sheep-gut string of the bow in felting wool—it is difficult to determine.\*

There are other objects in this Collection formed of bone and horn, with the precise uses of which we are at present unacquainted. When, however, the turner's art was introduced, numberless were the forms given to bone and horn, as may be observed Fig.171.No.24 in the present day. Under the head of Tools may be classed spikes and piercers, available for a great variety of purposes. The following Catalogue gives a detailed account of the articles belonging to the foregoing species, and displayed upon the top rows of Trays A and B.

SHELF I., Tray A.—Miscellaneous bone and horn articles, Weapons, Tools, &c., from No. 1 to 40. No. 1 is a hollow, dark-coloured bone haft,  $5\frac{3}{8}$  inches in length. No. 2, ditto, with a double aperture at top, stained black,  $5\frac{1}{3}$  inches long, ornamented by spiral and interrupted grooves. No. 3, a bone handle, 4 inches long, much worn at one end. No. 4, ditto,  $3\frac{3}{4}$  inches in length. All these, together with Nos. 18 and 40, were found in Lough Gurr, county of Limerick. Nos. 2, 18, and 40 were—Presented by the Hon. Sophia O'Grady. No. 5, a plain bone handle,  $3\frac{1}{8}$  inches long. No. 6, ditto, ornamented,  $2\frac{5}{8}$  inches long. No. 7, another bone handle,  $2\frac{7}{8}$  inches

<sup>•</sup> One of the most ancient remains of animal material referred to the "Stone Period," and preserved among the flint collection of the Copenhagen Museum, is a horn tine, notched on the concave edge, precisely similar to those in the possession of the Royal Irish Academy, but somewhat larger.

long, from Ballinderry crannoge. No. 8, a single piece bone-knife, 6\frac{1}{2} inches long, ornamented. No. 9, a similar instrument, 5\frac{1}{2} inches long, slight, and with a pointed handle. No. 10 (Fig. 170, page 261) is an ornamented bone-knife, which came into the collection along with—Nos. 110 and 114, among the pins on this Tray, and those stone specimens in RAIL-CASE B, described at page 120. All these, together with No. 11, an ornamented handle 45 inches long—were found in the Ballinderry crannoge; No. 11 was— Presented by Doctor Lentaigne. Nos. 12, 13, and 14 are bone knifehandles, averaging 3½ inches long, and having short iron blades still attached. No. 15, a bone knife-handle, highly ornamented, 41 inches long, with an iron blade 5 inches in length, sharp at the point, and thick in the back. No. 16 is of the same character, but is of ivory. No. 17, a short ivory handle, with a narrow knife-blade, 4 inches in length. No. 18, an ornamented handle, 4\frac{3}{8} inches long. No. 19, a large black bone pin, 9 inches long (see Fig. 224), found in the bed of the Shannon at Grosses Island, near Carrick on-Shannon, in July, 1847, and—Presented by the Shannon Commissioners. No. 20, a bone dagger, described at p. 258 (see Fig. 165). No. 21, a bone spearhead, ditto (Fig. 166). No. 22, a similar small bone spear-head, 4 inches long, found in the crannoge near Cloonfree, county of Roscommon—Presented by Alonzo Lawder, Esq. (see Proceedings, vol. v., p. 219). No. 23, ditto,  $5\frac{1}{2}$  inches long, was procured with the Dawson Collection, and said to have been found at Garristown, county Dublin. No. 24 is  $5\frac{3}{5}$  inches long. No. 25, a bone dart,  $6\frac{1}{5}$  inches long. No. 26, a bone spear, similar to the foregoing,  $5\frac{1}{4}$  inches long. No. 27, ditto,  $5\frac{1}{2}$  inches in length. No. 28, ditto,  $4\frac{3}{4}$  inches long. No. 29, ditto, 5 inches long. No. 30, a conical bone point (see Fig. 167, p. 258). No. 31, ditto, ornamented (Fig. 168). No. 32, a solid and apparently unfinished horn tip, similar to the foregoing, 23 inches long. No. 33, a curved piece of deer's horn, 5 inches in length, hollowed in the base. No. 34, ditto, 5\frac{3}{4} inches long. 35, a time of deer's horn,  $6\frac{1}{8}$  inches long, hollowed at the base. 36, 37, and 38, three skewer-shaped pieces of bone, pointed at both extremities, and varying in length from 31 to 71 inches; found at The Cutts, near Coleraine, county of Derry—Presented by the Board of Works (see Proceedings, vol. v., p. 417). No. 39, a metacarpal bone (Fig. 225, p. 344). It appears to have been part of a musical instrument. No. 40, the shank-bone of a sheep or goat, 8½ inches long, stained black, highly polished, and perforated at one end. Of the foregoing articles, Nos. 24 to 29, also 33, 34, and 35, were discovered in the crannoges of the lakes in the vicinity of Strokestown, county of Roscommon, and, except 25, 28, and 29, were—Presented by the Board of Works. For the remainder of Tray A, see pp. 273, 335.

SHELF II., Tray B.—Contains 303 miscellaneous Bone and Horn Articles,—Tips, Burrs, Pins, Plates, and Whorls, &c. No. 1 is a tine of deer's horn, 3\frac{1}{8} inches in length. No. 2, a horn tine, 3\frac{1}{8} inches long, from Lough Gurr. No. 3, ditto, artificially shaped, 2\frac{1}{2} inches in length. No. 4, ditto, ditto, 3\frac{1}{2} inches in length; found with No. 7 in Christ Church-place, Dublin. No. 5, ditto, 3½ inches long; from a rath at Ennisnag, county of Kilkenny. No. 6, a goat's horn, 25 inches, hollowed artificially at the base. No. 7, a horn tine, 3\frac{1}{8} inches. No. 8, ditto, 2\frac{1}{8} inches, slightly ornamented. No. 9, ditto,  $3_{15}$  inches. No. 10, ditto,  $3_{8}$  inches. No. 11, ditto,  $3_{8}$ inches, polished at top; from Dunshaughlin. No. 12, a portion of bone, 4\frac{3}{2} inches in length, found as No. 5. No. 13, a knife-handle, 3\frac{1}{16} inches. No. 14, a bone piercer, ditto. No. 15, ditto, 31 inches. No. 16, ditto, 5½ inches. No. 17, a small bone, 4½ inches long, from Lough Gurr. No. 18, a bone spike, 45 inches long. No. 19, a tine of deer's horn, slightly ornamented, 2\frac{3}{2} inches long. No. 20, ditto, 2\frac{3}{4} inches, plain. No. 21, ditto, 25 inches. No. 22, ditto, 23 inches, flat, with indented notches. No. 23, ditto, ditto, 2\frac{5}{8} inches. No. 24, ditto, 3 inches long, slit at the base (see Fig. 171, p. 262). 25 to 32 are horn tines, varying in length from 2½ to 4½ inches long; some in process of manufacture. All these, from No. 19, except 24 and 25, were found in a deep cutting in the formation of a sewer in Christ Church-place, Dublin.

On this Tray are three antler crowns or burrs (Nos. 186 to 188) which may have been either used as tools or as rings in horse furniture; also carved pieces of bone, resembling modelling tools, for the description of which see the continuation of Tray B on page 274.

#### SPECIES IIL - FOOD IMPLEMENTS.

Drinking-horns,—in Irish, cuirn, from the Latin cornu, and also cuacha,—cups or goblets, come in to this category; but it is

the Irish excelled in the formation and adornment of vessels of this description (examples of which have been already alluded to at page 114, and to which numerous references may be found in early Irish writings), the only horn vessels at present possessed by the Academy are the small circular and square drinking-cups, Nos. 1 and 2, in the lower Compartment of the last Glass-case; and No. 3, in Rail-case H.

The accompanying illustration is drawn from No. 2, a mether-shaped drinking-vessel, 42 inches high, and 21 wide at the top, ornamented by dots, punched or burned into the horn. The pine bottom was inserted when the horn was soft, into a groove similar to that in a mether.

Fig. 179. No. 2.

No. I is a circular horn goblet, with a bottom of the same material, let in like that in No. 2. It is  $4\frac{3}{4}$  inches high, by 3 wide at top, and is ornamented with raised rims; the handle was fastened to the vessel by iron rivets. It was found in the parish of Tamlaght O'Crilly, in the county of Derry. No. 3, in Rail-case E, is a very small four-sided drinking-vessel of horn, only  $2\frac{1}{3}$  inches high, but similar in shape to No. 2; found at Dunshaughlin.

Besides cattle, bondsmen and bondswomen, steeds, cloaks, hounds, shields, swords and armour;—drinking-horns, are enumerated among the chief tributes paid to the Kings of Erin, as set forth in Leabhar na g-Ceart, or Book of Rights. The original of the poems in that work are said to be as old as Benignus, the immediate successor of St. Patrick in the See of Armagh, and, in their present state, may be fairly considered as ancient as the ninth century. Mention is there made of the following forms:—"Drinking-horns, with handsome handles, curved drinking-horns, inclining drinking-horns, horns for carousing, drinking-horns for the banquet, drinking-horns for distribution fully prepared, drinking-horns for quaffing mead, variegated drinking-horns, with their peaks; drinking-horns

of various colour;" and also, "drinking-horns, on which is gold," which the King of Gaela, in Ui-Maine, brought with him to the banquet of Cruachain. In the Annals of the Four Masters, and also in those of Clonmacnoise, it is stated that King Tighearnmas, to whom the art of smelting gold and dyeing colours is attributed, was the first "who caused standing cups to be made"—probably drinking-horns with feet, like that figured below. In one of the sculptures upon the short cross at Monasterboice there is a representation of a sitting figure, holding a long curved drinking-horn to the mouth."

In the central Ghass-case of the Southern Gallery stands a very accurate model of the celebrated Charter-horn in the Museum of Trinity College, usually known as the "Kavanagh Horn." The original, from which the accompanying illustration was taken, is carved out of ivory; it measures 22

en of the mouth. It presents or faces, and stands upon a pair fastened above into a brass collinating in birds' webbed feet. ged plates pass along the conand convex margins, between niddle and the upper collar. All these metal portions were originally gilt. The end terminates in a ferule; a decorated brass plate surrounds the top, and bears the following inscription:—

1

Fig. 173.

## TEGERNANUS GTAVAN JUE JECHT, DEG GRACIAS. I. P. S.

Vallancey, who published a drawing of this in 1784, says: "It was the property of Thomas Kavanagh, Esq., of Ballyborris, in the county of Carlow, who has generously added it to the

<sup>\*</sup> See the Author's "Beauties of the Boyne and Blackwater," second edition, p. 803.

College Collection." (See "Collectanea de Rebus Hibernicis," vol. iv. p. 25, pl. 4.) The model in the Academy's Museum was—Presented by the late Dr. R. Ball.

Wherever cuticular horns are accessible spoons have been formed out of them, and such are still in common use in many places; but one of the rarest spoons, composed of animal material, which has come down to the present time, is that shown in the accompanying cut, drawn two-thirds the natural size, fro one of two articles of this descri tion, formed out of the concave e physes, or joint surfaces of the ve-Fig. 174. No. 2L. tebræ of some large mammal. It is almost of the natural shape, but has been slightly cut away on one of the edges, so as to form a short handle, which may have been inserted into a piece of bone, horn, or wood. and its fellow, No. 22, in Rail-case E, were found in the crannoge of Tonymore, between Crossdoney and Cavan. Proceedings for 23rd Jan., 1860.) A bone knife and fork, Nos. 358 and 359, are affixed to Tray C, see p. 338.

Bog BUTTER, CHEESE, AND WAX.—Under this species may also be classed food itself, the most remarkable examples of which in the Museum are the specimens of bog butter, the first of which, No. 37, standing in the centre of the first compartment of the Southern Gallery, has been already described and figured at page 212.

The substance called bog butter, or "mineral tallow," has been found in the peat in various parts of Ireland, and is supposed to have been buried for safety, as well as to give it a peculiar taste and consistence, which it derived from being converted into a hard yellowish substance like adipocere, or old dry Stilton cheese. It is usually found in single-piece wooden vessels, somewhat like methers or long firkins, as in No. 37.\*

<sup>\*</sup> See the author's notice of Bog Butter in the Proceedings of the Academy, vol. vi. p. 869, where the various authorities bearing on the subject are referred to.

It was first noticed as a curiosity in Ireland in 1736, and has also been discovered in the Færoe Isles, and in Scotland. It is usually found at a great depth, and in old solid bogs, in which it was originally placed, or through which it sank in lapse of years, after being deposited either for security, or to produce a certain chemical change, and consequent alteration in flavour, and, probably, in durability. Besides No. 37, the large specimen alluded to, there are several examples of this animal material in the lower compartment of the last glass-case in the Eastern Gallery.\*

No. 37 was found 9 feet below the surface in Grallagh-bog, near Abbeyleix, Queen's County, and was—Presented by Lord De Vesci. No. 38, a hard, yellowish-white substance, like old Stilton cheese, and in taste resembling spermaceti, is contained in a large, square, thin mether, apparently intended originally for a butter or milk vessel; it is 9 inches high, and 5 across, of willow, and double-handled. It was found in Ballyconnell bog, county of Donegal, 15 feet below the surface, and—Presented by Dr. Nolan. (See mether, No. 62 A, p. 216.) No. 39 is a small specimen of bog butter, purchased with the Dawson collection. No. 40, another small specimen of the same material, but apparently more recent. No. 41, a large specimen of bog butter, found 18 feet under the surface, in the county of Kilkenny; presented by William Walsh, Esq., to the Royal Dublin Society, and by that body deposited in our Museum. It was probably from this specimen that Professor E. Davy made the analysis of this peculiar substance, published in the Proceedings of the Royal Dublin Society for 1826. No. 42 is a fragment of the foregoing article.

CHERSE (cáise).—While bog butter is always found in wooden vessels, specimens of cheese of great antiquity have also been discovered in our bogs, unconnected with vessels of any

<sup>•</sup> In the lower compartment of this case is a wooden model of a stone coffin, presented by Dr. Walsh, and referred to at p. 185. It is 2 feet long, 8 inches deep, and 10 wide, and contains a quantity of incinerated bone, chiefly human, found in tumuli, and presented at different times to the Academy.

kind. Cheese differs in shape from the ancient butter, and bears upon its surface the impress of the cloth with which it was surrounded in the press. There are two examples of ancient cheese in the collection—No. 43, a globular, and No. 44, an oblong, brick-shaped specimen.

No. 43, a globular mass of cheese, very light, dry, and crumbly, and more like Stilton than the other specimen in the Collection. The top surface bears the mark of the cloth with which it was pressed, and it has also some leaf-marks upon it. No. 44 is an ancient cheese of a brick colour,  $7\frac{1}{2}$  inches long, by  $3\frac{1}{2}$  deep, marked all over with the impression of the cloth, which appears to have been of a much finer texture than that employed with No. 43. It has a raised cross on one side, evidently derived from the press, and at the ends may be seen the marks of the folds of the cloth.

Wax (céir).—With the specimens of bog butter in the end of the Eastern Gallery is a cake of pale yellow bees'-wax, No. 45; it is 7 inches long, 2 thick, and is believed to be antique. It formed a portion of Mr. R. C. Walker's collection, and was—Presented by the Duke of Northumberland.

SPECIES IV.—ARTICLES OF HOUSEHOLD ECONOMY, FURNITURE, DOMESTIC USE, AND THE TOILET, ETC.

Under this head we find piercers, needles, bodkins, combs, spindle and distaff-whorls, of bone and horn, all of which are attached to the Trays placed in the End-case of the Eastern Gallery. The three first varieties of articles enumerated in this species find many representatives among the Collection on Trays A, B, and C, but are (except Nos. 79 and 81 to 84, on Tray A) with difficulty separated from the pins used as fasteners or for personal ornament.

Combs—in Irish ciora.—Below the pins on Tray A is arranged a collection of forty-four combs, in either a perfect or fragmentary state, numbered from 116 to 172. From their shape it is evident they were used more for toilet purposes than as ornamental objects; indeed, we have not as yet met

with any ancient combs in Ireland specially used for holding up the female hair. If the hair was plaited, it was, in all probability, fastened as well as decorated with a bodkin of bone or metal. We have no warrant for supposing that the early Irish were acquainted with the manufacture of such horn combs, nor were they likely to have had much knowledge of ivory, or the use of tortoise-shell; and there is no evidence to show that our females, in early times, retained the hair in position by means of a comb of any kind, the introduction of which fashion is modern. The Irish, both males and females, were celebrated for the length to which they wore their hair (hence called glibbs and cuil-fion); and it is not unlikely that the latter sex adopted the fashion of plaiting it. (See Walker's "Essay on Irish Dress," and also Lady Moira's paper in the "Archæologia," vol. vii., referred to at p. 326.)

The combs in the Academy's collection may be divided into three varieties,—the long rack-comb, the single fine-tooth comb, and the double fine-tooth comb. The first vary in length, from No. 123, which is about 4 inches, to No. 120, Fig. 175, which, judging from the half that remains of it, must have been 10 inches: in breadth they range from half an inch to 13 With the exception of Nos. 135, 136, and 137, inches. which appear to be ornamented pocket-combs, there are no specimens in this collection formed out of a single piece. The sides of these rack-combs are generally hog-backed, and taper from the centre to the extremities, the great majority of them being highly decorated, many with pleasing patterns. tween these sides are set the pectinated portions, varying in breadth from half an inch to an inch and a quarter, according to the size of the bone out of which they were cut, the whole being fastened together with metal pins, generally brass, riveted on each face of the side. The back of the pectinated portion generally rises above the handle in the centre and at each extremity, as may be seen in the following illustration, Fig. 175, restored from the remaining half of No. 120, which

must have been 10 inches in length, and 14 wide. These toothed portions are in separate pieces, on account of the grain of the bone, as well as the cavity in its centre: for it is manifest that a durable comb of this size could not have been cut out of a single bone without great liability to fracture. By this ingenious



Fig. 175, No. 120.

contrivance, also, the pectinated portion, if worn or broken, could easily be repaired by driving out a rivet in the side pieces, withdrawing the injured part, and inserting a new toothed portion.

The accompanying illustrations, drawn two-thirds the natural size, present us with two beautiful specimens of the short one-sided or single fine-tooth comb, and both of which are highly decorated. No. 137, on Tray A, fig. 176, is 2½ inches long by 1½ deep, and formed out of a single piece.

Fig. 176, No. 187.

Fig. 177, No. 159.

Its decoration chiefly consists in its graceful outline, and the number of dotted lines and circles upon its sides. The three elevated rivets projecting above the toothed portion fastened metal plates, which, either in the original formation, or when the article had been accidentally broken, were attached to it. Figure 177, drawn from No. 159 in Rail-case III, numbered in continuity with the combs on Tray A, is the finest specimen of its class in the Collection. It is 2½ inches long, and 1½ deep, and the three pectinated portions are held together by flat sides, decorated with scrolls and circles. The top or handle shows a triple open-work decoration, and the side pieces are grooved at one end for receiving the clasp of a metal tooth, which replaced one of the lost bone ones. It was procured from the Ballinderry crannoge (see Proceedings, vol. vii., p. 129).

The third variety resembles very much the modern finetooth comb, and generally varies from 3 to 4½ inches in length, and from 1½ to 2½ across, the teeth portions being double, and passing through and through the sides to which they were riveted. The specimen, here figured two-thirds the natural size,

is a good example of this variety. The tooth part was originally in five pieces, and fastened between the sides with metal rivets.

Fig. 178. No. 149,

No. 140, which more resembles a modern comb than any of the others, has a copper ring inserted into one extremity, by which, in all probability, it was attached to the person.

• In some specimens may be seen brass teeth inserted where those of bone had given way, thus showing that at the time, or in the locality where such repair was made, brass was either easier worked or procured with greater facility than bone.

The Academy's Museum is particularly rich in combs; the crannoges of Dunshaughlin, Ardakillen, and Cloonfinlough, and the street cuttings in the city of Dublin, have afforded nearly all the specimens of which the localities have been recorded. The total number of combs at present in the Collection, including those on the "Find Trays," is eighty. Many of these

combs are but fragmentary; yet, in each a sufficiency has been preserved to enable us to judge of the original size, and also of its style of ornamentation, which generally consists of transverse or oblique grooves, diced-work, interlacings, dotted lines, and circles surrounding a central indented spot. For particulars respecting these articles, see the following details:—

SHELF I., Tray A.—The long rack-combs are placed above, the double close combs below, and the small pocket ones in the centre. No. 116 is a portion of a long rack-comb. No. 117, the complete back of a comb,  $5\frac{3}{4}$  inches long. No. 118, ditto, nearly complete,  $5\frac{1}{2}$  inches long; the pectinated portion rising above the back at the ends. No. 119, ditto, was, with Nos. 121 and 126, found in excavations made in Christ Church-place, Dublin. No. 120, Fig. 175, page 271, now 5\frac{1}{2} inches long, is little more than half the original size; it, as well as Nos. 140 and 142, were procured from the Strokestown Crannoges. No. 121 is complete in the back, and 61 inches long. No. 122, a small, perfect specimen, 4 inches long, was, together with Nos. 118, 135, 136, 137, and 149, procured from the Crannoge of Lagore, near Dunshaughlin. No. 123, a portion of rack-comb, 52 inches long. No. 124, the back portion of a rack-comb, much curved. . No. 125, a perfect back, 4\frac{3}{4} inches long. No. 126, a fragment of a rack-comb. Nos. 127, 128, and 129, ditto. No. 130, one side of a back, complete. Nos. 131, 132, and 133, are fragments of single combs. No. 134 is the fragment of a long comb, with remarkably fine, narrow teeth, only  $\frac{1}{4}$  of an inch long. No. 135 is a portion of a pocket-comb, like No. 137. No. 136, a pocket-comb, 15 of an inch long, by 13 high, with a semicircular and decorated top. No. 137 is from Lagore, figured at p. 271. No. 138, a portion of a rack-comb. No. 139, ditto, narrow, and repaired with brass teeth at one end. No. 140, a portion of a double comb (p. 272), found with No. 141, in the Ardakillen Crannoge. Nos. 141, 142, and 143, are portions of double combs; the last was found in the bed of the River Glyde, county of Louth (see Proceedings, vol. vi. p. 179), and —Presented by the Board of Works. No. 144, a perfect double comb, 3 inches long, and 23 broad, with a brass ring attached to one extremity; it was found in the Crannoge of Loch-Laoghaire, near

Clogher, Co. Tyrone, in 1845, and—Presented by the Earl of Enniskillen. (See Proceedings, vol. v. p. 215; also a notice of that Crannoge at p. 231 of this work.) No. 145, a double-comb, very rude, and having the side piece indented, either by long use, or from comb-Nos. 146, 147, and 148, are imperfect or ing very coarse hair. fragmentary portions of double combs. No. 149 is the best specimen of double ornamented comb in the collection, and presents an entirely different pattern from any of the foregoing. (See Fig. 178, p. 272.) No. 150, a large, imperfect, hog-backed rack-comb, ornamented on the sides, and found in a deep excavation in Fishamble-st, Nos. 151, 152, and 153, are fragments of rack-combs; the Dublin. last, together with No. 156, was found in a street cutting in Castle-street, Dublin. Nos. 154, 155, 156, and 157, are fragments of rack-combs. No. 158, a portion of a double comb, ornamented, the teeth much worn; found at Lackanash Hill, between Trim and Navan, county of Meath, and—Presented by The Very Rev. R. Butler, Dean of Clonmacnoise. (See Proceedings, vol. vi., p. 171).

The other articles on this Tray are enumerated at pages 262 and 235.

Spindle Whorls, cuigéala,—of bone, and numbered from 274 to 280, occupy a central position on the last line but one of Tray B, and resemble those of stone already figured and described at page 115. In one of these, No.

274, here figured two-thirds the natural size, a portion of the lower end of the bone spindle still projects. Of the remaining six, Nos. 276 to 279 are notched, and worn round their central apertures, as if by the passing of threads.

see the following description:-

Fig. 179. No. 274. They are all more or less decorated, and average 11 inches in diameter. For the particulars of other articles on this Tray,

Tray B, already described at page 264, contains articles of bone and horn, consisting for the most part of stag-horn tips, mantle pins, decorated bone plates, spindle whorls, draftsmen, counters, and a number of miscellaneous articles, the precise uses of which have not yet been determined. The top row consists of tines or extreme points of deers' horns, some in the rude state, and others decorated at top and bottom. A few, particularly Nos. 22 to 26, are flattened on the sides, and notched on the concave surface. These were probably tools. (See p. 262.) From No. 33 to 185 are bonepins, described under the head of "Personal Decoration" at p. 331. In the centre are four circular disks (Nos. 186 to 189), the three first being burrs of stags' horns, smoothed and polished upon the inner surface of the rings, the largest measuring 3 inches in diameter. The last is a circular piece of a scapula; the perforation in the centre is smaller than in the three first; it and No. 186 were found at Lagore, county of Meath, and No. 187 was dug up at Christ Church-place, Dublin. (See p. 264.)

Beneath these rings are three long bone articles (Nos. 190, 191, and 192), apparently tools, possibly for netting or modelling, the longest being about 9 inches. Each is perforated in several places, the holes being surrounded by rings, as in the bone plates and other small articles alluded to at page 342. No. 193 is a bone spoon, 5 inches long.

The other articles on this Tray are enumerated at pages 264 and 336.

SPECIES V .- DRESS AND PERSONAL DECORATION; HORSE TRAPPINGS, ETC.

Having at the commencement of this section glanced at the various animals by which the primitive Irishman was surrounded, and which either ministered to his wants in food, gratified his vanity in the decoration of his person, or contributed to his amusements; and reviewed the various animal products employed in the early state of the arts, as exhibited by this Collection, we now proceed to the consideration of animal substances—in clothing and decoration. Under this head come skin and leather coverings of all descriptions, and for every part of the body, with their necessary fasteners, such as straps, pins, and buttons, also hair and woollen fabrics, together with pendants, necklaces, and other decorative objects. Notwithstanding the perishable nature of

such materials, undoubtedly the two oldest specimens of personal decoration (except those of amber), in the Collection, are the bone fibula and shell necklace, found, with cinerary urns and human skeletons in the tumulus, in the Phænix Park, already described and figured at p. 183. The fibula is enlarged at both ends, and was probably employed in fastening the hair. It, and the necklace, undoubtedly coexisted with flint weapons, the practice of cremation, and interment within cromlechs and tumuli, long anterior to the metal age.

Skin and Leather Dress.—Before the art of weaving was known, probably before wool was introduced, we can picture to ourselves man clad in garments of the skins of large ruminants, such as deer or oxen, but particularly the former, which, from their fineness, flexibility, and strength, as well as the character of the hair, would be the most suitable as articles of dress. Ledwich truly observes: "It may fairly be affirmed, the most ancient Irish dress of which we have any certain account was barely a skin mantle, which the Welsh also used; this was afterwards changed for a woollen one" (Antiquities of Ireland, p. 260); but the author does not give any reference to that "account." We are not, however, left here altogether to conjecture, or forced to draw analogies from the habits of half-civilized man in other countries at the present day, for a human body, completely clad in a deerskin gar ment, was found in a peat-bog, on the lands of Gallagh, near Castleblakeney, county of Galway, in the year 1821, and was for many years exhibited in the Museum of the Royal Dublin Unhappily, only a few fragments of this most interesting dress now exist, and they form a portion of the valuable Collection lately deposited by that Society in our Museum. Rail-case E, No. 5. Portions of the seams still remain, and are creditable specimens of early needlework. The material employed in sewing was fine gut, of three strands, and the regularity and closeness of the stitches are most remarkable, as shown by the accompanying cut, in which a bit of one of

the joinings is represented double the natural size. This closure was effected by what is termed the looped stitch, similar to that used in working a button-hole, so that, by having each stitch knotted, the chance of ripping was lessened.

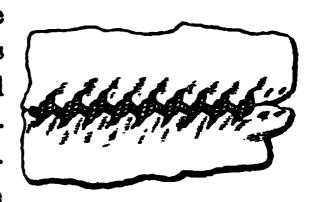


Fig. 180. No. 5.

Examined under the microscope by Mr. Queckett, this skin and hair, some of which latter still remains, is found to be that of the deer, but of what species could not be determined. The body, as well as the dress, was, when first discovered, quite perfect, but, having been disinterred at different times for the inspection of the curious, the clothing was very much injured before it was deposited, eight years afterwards, in the Dublin Society's collection. It was found ten feet below the surface, in a small dry bog, surrounded by pasture land. The head, legs, and feet were uncovered, but the body was enveloped in the skin tunic, which reached to the knees and elbows, and was laced in front by thongs of the same material.\* The body was immediately replaced by those who first found it, but exhumed a few years afterwards, and finally taken up in 1829, and deposited in the Dublin Society. was said to have been six feet high, apparently of a person of about thirty years of age, and, when discovered, had the teeth, long dark hair, and even the partially grown beard, Had it and its skin dress, in Irish cochall croichinn, been preserved in its original state, no museum in the British Isles could boast of a more valuable specimen, nor one more conducive to the advancement of ethnological science. The foregoing circumstance is illustrative of the neglect of our na-

<sup>\*</sup> See Dr. Petrie's paper in the Dublin Philosophical Journal, vol. i., p. 488, 1825; and the letter of Mr. A. O'Kelly, of Tycooly House, to the Royal Dublin Society in 1829,—in the Proceedings of that Institution, vol. xlv., Appendix to Report of Feb. 12, 1829.

tional antiquities, or of investigations into the true history of the Irish race, until a very recent period.\*

Even in the rudest states of society, sharp flint knives, such as those described in Section I., could skin the animal and fashion the garment, while a fine bone piercer or needle, and a leather thong, or the twisted intestines of the same creature, would form sewing materials, long before the use of vegetable fibre, or even wool, was known in Ireland. From the same untanned material, defences for the feet were formed. It is stated in the old bardic tale of the Tain bo Cuailgne that Loegh, the ara or charioteer of the hero Cuchulainn, was clothed in a tunic of deer-skin. Giraldus Cambrensis, writing in the twelfth century, relates a story, on the authority of some sailors who were driven on the Connaught coast, that they met two men in a long, narrow, oblong boat, covered with hide, stitched together on the outside. They were, he says, "naked, except that they were girded with loose belts of untanned hides of animals," and they stated that they used no clothes except those of skins, and that they lived altogether on flesh, fish, and milk.—Topographia Hibernia, p. iii., c. 26. This statement has, however, been questioned by Father Stephen White, in his "Apologia pro Hibernia."

The earliest head-dress was also, in all probability, of skin, but of what shape we have now no knowledge; it is, however, probable that the peltry of hares, rabbits, dogs, and other small animals, being highly decorative as well as useful, was employed not only for head-gear, but other ornamental purposes. A skin skull-cap, covered with dark fur, and perforated round the edge by a double row of holes, may be seen in the first Compartment of the Southern Gallery (see No. 4). It formed a portion of the valuable collection of the late Mr. R. C. Walker, when purchased by the Duke of Northumberland, and—was presented by his Grace.

<sup>\*</sup> For a description of the body which this dress surrounded, and which is now preserved in the Academy's Museum, see the Section on Human Remains.

Although a complete skin costume, such as that now used by Esquimaux, must have given place, at least in several articles, to textile fabrics, at the commencement of the Christian era, yet skin or leather garments, chiefly cloaks, are alluded to in our early histories. They must have been in common use during the great frost of A. D. 942, when Muircheartach Mac Neill, Prince of Aileach, surnamed "Murtagh of the Leather Cloaks," in making his celebrated circuit of Ireland, by that great forced march in which his army never slept twice in the same place, clad his warriors in long leather cloaks, or outer garments, which not only protected them from the severity of winter during the day, but were also employed as tents at night. It is said that there was not a man lost in that campaign.\*

Upon the coast where seals abound, their skins were probably used by the natives for clothing. When the country was more than half covered with wood, and the mountain passes and rocky fastnesses afforded secure retreats to the wolf, the fox, the badger, the martin, and probably the squirrel, and the river's banks swarmed with otters,—their warm furs afforded the natives, in great plenty, a means of clothing and decoration, not now procurable except by importation. Even long after the great bulk of our forests had been submerged in bog, or were cut down, peltry formed a considerable article of traffic, and also a portion of our exports;† and all the Irish chieftains, down to the seventeenth century, of whom we have any picture or accurate description, appear to have been decorated with fur.

We can imagine the transition from the complete covering of the figure with untanned skin in the earliest state of

<sup>\*</sup> Leather cloaks, in Irish Cochall Croicoinn. See O'Donovan's translation of "The Circuit of Ireland, by Muirchearteach Mac Neill," published by the Irish Archæological Society.

<sup>†</sup> As many as 169 otter-skins were claimed by the English Exchequer at Dublin in 1408, from the representative of the family of Gillamochalmog, as arrears of his rent for Radon. See Gilbert's "History of Dublin," vol. i., p. 233.

society, to the time when buff coats, with or without mail, leather caps or helmets, belts, and military accourrements, buckskin breeches, ornamented leggings, together with sandals, shoes, and every variety of boot, gaiter, gauntlet, and glove, again clad the figure with its primitive materials,—but in a manufactured state. As, however, we have had no Froissart in Ireland, and as yet possess but little accurate knowledge on the subject of our early national costumes, we have no means of tracing the steps by which this process took place.

Skin and leather, in the Academy's Museum, are, for the most part, represented by sandals, shoes, and buskins, of which we now possess one of the most extensive collections of its kind extant. They are attached to Trays D, E, F, and G, in the End-case of the Southern Gallery.

Shors and Boots, of what may be termed antiquity, present, upon a close examination, several curious artistic details and ingenious devices. When the Irish first learned the art of tanning, is at present unknown; but as this branch of manufacture is of great antiquity in most countries possessing any degree of civilization, it is not likely that we were unacquainted with it during historic times.\* Most of the specimens in the collection are evidently made of tanned leather, and are also considerably worn; but a few are of untanned hide. As nearly all the antique objects of skin were discovered in peat-bogs, to the tanning properties of which they were subjected for so many years, it is now difficult to state with precision whether each article was originally tanned or not.

For the sake of arrangement, these articles of dress may be divided into the single-piece shoe or buskin, and that in which two or more pieces were employed in its fabrication. To understand the antique single-piece shoe, it is well to in-

<sup>•</sup> See an extract from one of the Brehon Laws relating to the penalties for stripping bark for tanning purposes, given as a specimen of the Irish language in the fourteenth century in O'Donovan's "Irish Grammar," p. 448.

quire whether anything approaching thereto is worn in the present day. In the western islands of Aran, the majority of the people wear a sort of mocassin or slipper of untanned hide, which envelopes the foot for about an inch and a half all round, and is tightened by means of two pieces of cord, the one lacing up the toe-part, and the other the seam at the heel. The string from the latter passes through loops along the inside, and that in front by the outside, to the instep, round which they are then fastened like a lady's sandal. These flexible coverings to the sole and edge of the foot formed out of the fresh hide, with the hair externally, after a short time assume a certain degree of firmness, while they adapt themselves to the form of the wearer's foot. They are admirably suited for climbing the precipices, and progressing upon the great stone fields of these islands, and are, perhaps, the most ancient remnant of the aboriginal Irish dress which has come down to modern times. The name given to these feetcovers by the islanders is Pampoota, which is not Irish, nor, as might be expected, Spanish, but resembles the German word "Pampoosheen," a galosh or warm shoe-cover. It is, in fact, the pantoufle, a low shoe or slipper laced to the foot, analogous to the Latin solea, "a sandal or slipper covering only the sole of the foot, and fastened with laces." There are two pairs of modern pampootas in the collection, one purchased many years ago with the Dawson collection, and which have been placed for exemplification as Nos. 1 and 2 on Tray D. The second pair, Nos. 24 and 25, on Tray F, were purchased by the Author of this Catalogue from one of the islanders, during the recent ethnological excursion of the British Association to Aran in 1857. They are made of untanned calfskin, the strings or latchets being formed of fishing-line.\*

<sup>\* &</sup>quot;Froissart, in his account of Edward III.'s expedition in 1326, tells us that ten thousand pairs of old worn-out shoes, made of undressed leather, with the hair on, were left behind by the Scotch on that midnight retreat which baffled the English, and terminated the inglorious campaign."—Planche's "History of British Costume." It does

Although vegetable material, flax, hemp, or pegs, are now used in the manufacture of boots and shoes of the strongest description, the oldest coverings for the feet which antiquity has brought to light were sewn together, and also laced to the foot with thongs or straps of leather. Sewing with a thong, however, has been in use in the manufacture of the brog, or rude unbound shoe of strong cowhide, commonly called "kip," up to recent years, as for such purposes it was much more durable than the waxed-end of hemp or flax; and, swelling or collapsing according to the state of dryness or moisture of the material it united, it formed a much more durable fastening than either of the latter. Both brogues and pumps, the latter made without a welt, and turned after the sole was attached, were usually sewn with a thong.

In the accompanying illustrations are shown two forms of thong-closed, single-piece shoes. Fig. 181, No. 6, on Tray **p**, is a large shoe of strong, tanned leather, 10 inches long, gathered round the toe in full plaits by means of a flat thong,

## Fig. 181. No. 6.

on the principle of the pampoota; but the fulness of the gathers in front resembles the cloth or velvet round-toed shoe worn in the time of Henry VIII. The back seam is closed by a broad thong, ingeniously fastened, as shown in the accompanying cut. This very ancient shoe was found in a bog near

not appear that Proiseart was ever in Ireland—whatever his Chronicles contain respecting this country, was derived second hand from Henry Castide, whom he met in France.

Roscrea, county of Tipperary, and was presented by the Hon. A. Prittie to Dean Dawson, with whose collection it came into the Academy's Museum. Of the same variety, but smaller, and evidently belonging to a different class of society, is the single-piece, thong-laced shoe, No. 23 on Tray F, figured below, and found on the foot of a female discovered in a dry bog at Castlewilder, county of Roscommon. It is now 7½

inches long, and was laced with thong in front and behind. The front seam is elegantly plaited, and must origi-

Fig. 182, No. 28.

nally have come high up on the instep. This specimen is of much thinner material than that employed in any other ancient shoe or buskin in the collection, and it appears to have been bound round the ankle with the leather thongs, which closed the seams, after the fashion of the pampoota sandal. It is said that the body from which this curious relic was removed was clothed in a woollen garment, had an abundance of long, black hair on the head, and was decorated with golden ornaments. From the mystery attending this discovery, and the endeavour to conceal the body, the latter statement is not improbable.

Still forming the shoe out of a single piece of leather, and without any attached or additional sole-piece, a double step in advance seems to have been made contemporaneously: that of closing the seams by their flat edges instead of overlapping or intermixing them, and also of carving and decorating the surface of the leather, as shown in the annexed representation drawn from No. 11, on Tray D. To effect the former object, gut\* (ionnathar) was introduced, and with this substance all the other single-piece shoes in the Collection, except those

<sup>\*</sup> This has been proved by macerating portions of the sewing of every shoe in the Museum, in which it was employed.

already shown to have been kept together with thongs, have been sewn. Moreover, this description of shoe was evidently closed upon a last, stitched by what is termed grafting, and then turned. The front seam is now so very close as to form a regular zigzag pattern, produced, no doubt, when the leather was wet, and each side drawn so tightly as to indent the op-

## Fig. 188, No. 11.

posite edge. This shoe is pointed in the toe, and has a triangular piece of the sole-portion turned up to form a round
heel, which, as well as the quarter, is also decorated with
a regular pattern. There are oblong holes cut out of the
sides, for attaching sandals to. Nos. 10 and 13 are decorated
shoes of this description, although presenting great variety in
ornamentation.

Of the double, or many-piece shoes or buskins, the two following examples will suffice. Figure 184, from No. 22, on Tray E, is the upper of a curiously formed and decorated



## Fig. 184. No. 22.

shoe, 10 inches long, of dark, well-tanned leather, and differing in shape from any of the foregoing, being cut down as

low as possible in front, and rising about 4 inches over the heel. It is formed of one piece, sewn on the inside with gut, and has the longest quarter of any shoe in the Collection. The square apertures at the back were intended for laces, and the upper edge of the part above the heel is decorated with an angular form of ornamentation, which is shown to advantage in the separate drawing on the foregoing woodcut. The front of the upper is cut out very low down, but has an ornamented flap 21 inches long, and an inch wide, decorated with a twisted device, carved out of the substance of the leather. A comparison of this beautiful interlacement (which partakes of the character of that form of ornamentation displayed in some of our early manuscripts, crosses, and shrines, and which may be styled the Opus Hibernicum) with the rude, irregular decoration represented by figure 183, shows the great advance in art which had taken place between the periods when these two specimens of leather work were made. The toe-piece presents a semicircular cut carried round in a heart-shape, where, probably, a portion was taken out, and the edges sewn together with fine gut, so as to turn up the extremity like an oriental slipper. It was found in a bog at Carrigallen, county of Leitrim, and presented to the late Dean Dawson by the Hon. and Rev. J. Agar.

In No. 13 the toe-piece of the upper is decorated with an open-work pattern, which passes through the leather. In No. 8 we find the transition from the leather-sewing to that effected with gut, with which the hind seam is closed, while the front lacing is accomplished with a thong.

So far as the means of closure is concerned, a third stage came into fashion, apparently long prior to the use of flax or hemp, and was that in which the seams were closed by woollen threads, of which we have examples in Nos. 16 and 17, on Tray E. Whether shoemakers' wax, or any such adhesive material, was employed in sewing leather with a woollen thread, cannot now be determined.

Among the many-pieced, gut-sewn coverings for the feet' besides those already described, we possess two strong leather buskins, or half boots (coisbheirt), Nos. 19 and 20 on Tray F,

the former of which forms the subject of the accompanying illustration. It is of thick, coarse leather, of a tan or dirty-yellow colour, similar to

Fig. 186. No. 19.

Archipelago. It is now 11 inches long, and was formed on the plan of a turned pump, with a double sole: both, however, together with the upper and welt, being included in the same stitch. A long triangular heel-piece, carried up from the sole, is ingeniously inserted between a slit in the upper, as in some of the very rudest single-piece shoes, so as to give a comfortable rotundity to that part. A large flap overlaps the instep, the loops for fastening which still remain, and a stout piece of thong is stretched across the angle between the vamp and upper to prevent breakage or straining. It was found in 1790 in a bog in the townland of Belladrihid, parish of Ballisadare, county of Sligo, and—Presented by the Duke of Northumberland, who purchased it with the collection made by Mr. R. C. Walker.

A fourth period in the progress of leather-working dates from the introduction of vegetable material, such as flax or hemp, for closing the seams, and consequently, so far as such an artificial arrangement is concerned, brings down the art to the present time. As an exemplification thereof, the accompanying illustrations of a very curious pair of double shoes are presented, drawn from Nos. 24 and 25 on Tray 7, and here

shown, both in profile (Fig. 187), and upon the sole aspect

(Fig. 186). These represent a pair of right and left shoes, very curiously made, and united by a double strap of the common sole, each about 2 inches long, and 1 wide. This sole consists of a single piece, and is attached to the uppers without the intervention of a welt, after the manner of a turned pump. The heel, which is the first

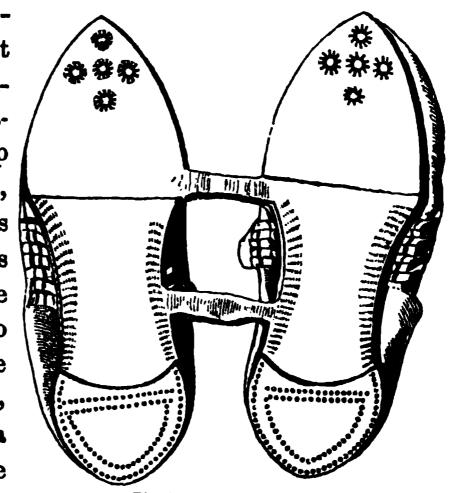


Fig. 186. Nos. 24 and 25.

instance of such that occurs in the Collection, is composed of several plies of leather, fastened on with pegs. The upper in each shoe is formed out of a single piece of thin leather, grooved, tooled, and embossed like cordovan; the quarters are double, the inside leathers being open behind, and the only seam in the upper is a delicate grafting with thread along the front of the toe-piece. This continuity of upper is well seen in the right shoe, but there are three seams in the left, apparently from a defect in the leather. In each quarter it

slopes from the point above the heel, where it is 3 inches high, to its junction with the front, about



Fig. 187. No. 24.

A toe-piece, or ornamented vamp, passes all round the edge of the upper, which it overlaps, and interlaces with the back portion at its free scolloped edge. Not the least curious part

of these shoes is the ingenious mode by which the uppers are attached to the soles by a double thong, showing wonderful perfection in the art of stitching. These shoes were probably turned after one half of the soles were attached. Where the fronts and quarters join, at the point where the double back runs into the ornamental over-lapping of the upper, there is an openworked or interlaced strapping, about 2 inches long, and 1 broad. They are said to have been found, wrapped in a piece of leather, in the rampart of a fort in the parish of Kill, near Cootehill, county of Cavan, about forty years before they were purchased by the Academy, in 1843. During the interval they remained in the roof of a peasant's cabin, near the place where they were discovered. They are evidently much more modern than any of the foregoing, except the pampootas. Conjecture as to the use of these marvellous specimens of the Crispinian art might suggest the possibility of their having been used as inauguration shoes by the chieftains. Certain stones used at that ceremony in ancient times still exhibit the indentations in which the feet were placed on such occasions. These shoes are worthy of examination as a curious instance of the ingenuity of the maker, like shirts woven without a seam, and many other similar examples of handicraft.

Besides the specimens of leather-work referred to in the foregoing description, there is a collection of ladies' old-fashioned slippers and high-heeled shoes of the seventeenth and eighteenth centuries, worthy the attention of the curious, as illustrative of the strange extravagancies in costume, from the length and narrowness of the heel, which in some of these articles excites our wonder as to the possibility of progression on such slender and unnatural points of support. The following is a detailed list of all the shoes and buskins composed of animal materials in the Collection:—

SHELF I., Tray D, Single-piece Leather Shoes and Sandals, Nos. 1 to 9.—Nos. 1 and 2 are modern pampootas, described at p. 281. No. 3 is a single-piece buskin, 9 inches long, imperfect, laced much higher

up than the modern pampoota, and fastened by leather thongs before and behind, but which did not encircle the instep. Like most of the other ancient single-piece shoes in this Collection, this seems to have shrivelled considerably, yet never could have belonged to a large There are still some traces of hair upon the outside of the foot. No. 4 is a single-piece shoe, 9 inches long, of thick leather, with the side on which the hair was, placed externally. Thick, firm, and in good preservation, it is laced before and behind with a round thong; the latter took a purchase for an inch along the edge of the upper before it closed the seam; the front lacing continued high up upon the instep. No. 5 is similar to No. 4, but smaller, being only 8 inches long, and it is not laced quite so high up in front. The hind thong is ingeniously knotted at both extremities by being passed through holes in itself. Both these shoes were found "several spits deep in Drummacon Bog," county of Cavan, and were—Presented by Lord Farnham. Like all the other specimens on this Tray, the external face of the hide is placed outwards. No. 6, Fig. 181, is described at p. 282, No. 7, a left single-piece shoe, 9 inches long, laced with a thong at both heel and toe; the front seam collects the upper into gathers; and there is no apparent means of fastening the thong. There are two lateral holes in the quarters, apparently for attaching laces to. The heel is ingeniously protected at the lower edge of the seam by a heart-shaped piece, which is made to overlap the end of the joining. No. 8, a small single-piece shoe of strong leather, much corrugated, 7 inches long, laced up the front with thongs, which also passed round the edge of the upper, and gathered it round the instep. These strong flat thongs remain attached, and that in front has a loop at one end for fastening the knutted tying The back seam is closed with gut, this being the first shoe in this arrangement in which that material was employed. No. 9, a single-piece left buskin, 9 inches long, having but one seam, that in front, which was laced over the instep with a thong. The thick, soft leather is deeply indented by the seam which puckered it when the skin was fresh. It was found in Cartronawar Bog, county of Longford; and was—Presented by the Rev. Dr. Martin.

Tray E, Decorated and sewn Leather Shoes and Boots, Nos. 10 to 18.—No. 10, a single-piece left shoe, 9 inches long, much worn in the sole, and closed behind and in front with gut, so very tightly that

the seam presents an indented or zigzag appearance, produced when the leather was wet and soft. The upper overlaps the instep by an ornamental flap, like a modern slipper, and a triangular piece of the sole, carried up round the heel, is attached with great accuracy to the upper, and gave a roundness to that part; the toe is rather pointed. It is highly decorated all over the upper and a portion of the quarter. Although formed altogether of one piece, both this and the following were evidently lasted and grafted. They are right and left shoes, but not fellows. It was found in a turf bog, 7 feet beneath the surface, between the trunk and branch of a tree at Ballymacomb, near Bellaghy, county of Derry, and was—Presented by Miss Alexander. (See Proceedings, vol. iii., p. 541.) No. 11, a single-piece shoe, similar to the foregoing, and highly decorated (see Fig. 183, p. 283). It is  $9\frac{1}{3}$  inches long, and  $5\frac{1}{3}$  from flap to point of toe. No. 12, a single-piece right shoe, 10 inches long, with projecting flap. It is sewn in front and at the heel with gut; an oval piece overlaps the heel at its junction with the sole. The front seam presents a number of gathers, by which the leather was drawn into its present shape when soft; the edge of the upper is notched all round. It is made of soft, tanned leather, and was found in the Castle of Tullamore, Queen's County. No. 13, a single-piece left shoe, of the pampoota shape, round-toed, with an open-worked front, so that it was evidently not intended to keep out the wet; it is closed with a thong both in the back seam and along the open-work, and was laced to the foot with a leather sandal, a portion of which still remains; in the upper edge of the quarters, near the heel, are longitudinal slits, through which these tyings were passed. It is now 9 inches long; appears to have been much worn; was found deep in the Bog of Buggaun, parish of Ballymore, near Moate, county of Westmeath, and—Presented by Mr. Hayes. (See Proceedings, vol. vii., p. 160). No. 14, a right single-piece shoe of thick, tanned leather, with a pointed toe, sewn with gut, both along the triangular flap over the heel, and in the overlapping in front, which is gathered in by a seam of beautiful workmanship, in which there is an interlacement of the material itself, like No. 12. It is now 9% inches long, is in good preservation, and was also found in the Bog of Buggaun, and—Presented by Mr. Hayes. No. 15, a remarkable two-piece right shoe, 11 inches long, of thick leather, the anterior

and posterior portions being joined across the middle of the sole, by grafting with gut from the inside. It is also sewn with gut up the front, and at the heel, where the lower edge of the seam is overlapped by a portion cut from behind, and fixed to the quarter by a leather thong. Nos. 16 and 17, a pair of shoes, right and left, each 9 inches long, of thin, well-tanned, and apparently glazed or varnished leather, of a yellowish colour. The upper of each is of one piece, joined on the inside of the quarter; the sole is composed of many pieces, and attached to the welt by woollen threads. The stitching at the edge of the sole includes four plies,—the sole, insole, welt, and upper; and in some parts the welt is double. The right and left shoes in this instance are well marked, and evidently belonged to a person with small feet; they appear to have been intended more as a protection in walking and for ornament than to keep out the wet. The upper edges of the back and vamp bear marks of sewing, and are said to have been attached to the trews or pantaloons, in connexion with which they were found. Where the quarter and upper meet, a leather loop has been ingeniously fastened through the angle, so as to strengthen the junction, and prevent its tearing. To the outside loop upon the left shoe is fixed a triangular piece of leather, which, at first sight, appears to be ornamental, but on closer examination its edge is found pierced with holes, so that in all probability it was attached to another piece of the same material which passed from behind forwards, and protected the tendo Achillis. These shoes or buskins were found upon the body of a man in full woollen costume, discovered in the year 1824, six feet under the surface of a bog in Killery parish, county of Sligo. They were, together with the dress—Presented by the Duke of Northumberland. No. 18, a single-piece right side upper, 11 inches long, of the same description as the foregoing, of fine, well-tanned leather, apparently the natural colour, with the smooth side out; joined on the inside, but no fragment of the sewing material remains. The tongue rises into a high flap; the angle between the quarter and upper is cut down to within 1 inch of the sole, is protected by a stout leather loop on the left side. This shoe was found in a bog in the county of Tyrone.

SHELF II., Tray F, Shoes, Buskins, and Pampootas, Nos. 19 to 28.

—No. 19, a strong, leather buskin, figured and described at page 286.

No. 20, a laced left boot, of stout, tanned leather, uncoloured, 9 inches in the sole, and 8½ high in the leg, laced half way up in front. has a single sole, which was turned without a welt, being attached to the upper with gut. An ornamental seam runs up the front, which rises into a peak. The angle between the vamp and quarter is protected by a strong leather thong, and a small piece has been inserted into the upper at the turn of the heel, in order to remove the angularity at that point; ingeniously contrived thongs fastened this boot in front. It was found in the Queen's County, and—Presented by Mr. M. Gill. No. 21, the right sole of a turned pump, 10 inches long, "found, in taking up part of the old city of Dublin wall adjoining the old tower in the Castle-yard, by Mr. Johnson, and said to have lain there since the year 1202."—Presented by W. Farran, M. D., 21st July, 1842. No. 22, the decorated upper, Fig. 184, described at page 284. No. 23, the lady's single-piece shoe or buskin, described and figured at page 283. Nos. 24 and 25 are the pair of double shoes described and figured at pages 287 and 288. Nos. 26 and 27, a pair of modern pampootas from the island of Inisheer, in Galway Bay.—Presented by W. R. Wilde, Esq. No. 28 is a right, thong-sewn, turned shoe of several pieces, and differs in many respects from every other specimen in the Collection. It has been apparently much worn, especially in the sole, and is now 9½ inches long, and composed of thick, well-tanned leather, with the cuticular side externally. The upper is composed of six pieces, viz.: the toe-piece, the two quarters, which are cut down to an angle, a little in front of the arch of the foot; and the spaces between the front and back portions are filled up with latchets on each side, which strapped over the instep; behind there was a flap, which fell over the heel portion, and appears to have been more for ornament than use. The sole is double, so that the thong-stitching embraced three folds of leather. This shoe forms a portion of the deposit of Irish antiquities lately made by the Royal Dublin Society, in the Museum of which body it had remained From a letter of that date, found in the shoe, it apsince 1808. pears to have been presented to General Vallancey by General Freeman, who procured it from the then Dowager Lady Monck. letter states that it was discovered twenty feet deep in a turf-bog near Templemore, county of Tipperary.

Tray G, Ladies' Slippers and high-heeled Shoes, Nos. 29 to 34.—

Nos. 29 and 30, a pair of ladies' slippers, each 91 inches long, very much pointed at the toes; the uppers formed of puce-coloured satin, bound with yellow, and having silk tassels in front, the soles formed of matted cord-work; heels made of cork; and insoles of several plies of linen and paper. Nos. 31, 32, and 33, are three high-heeled shoes, showing the increase in the extravagance of that fashion. The first is beautifully made, of leather; the quarter, black; the vamp, red; the heel is carried down like the head of a hammer, and covered with fine, red leather to near the end, where it is about an inch broad. No. 32 is a left high-heeled shoe, 11 inches long, with a particularly low upper, formed of leather, yellow behind, blue and pink in front. The heel slopes forward  $4\frac{1}{3}$  inches, so as to touch the ground underneath the central point of the arch of the foot, where it narrows to \$\frac{1}{2}\$ of an inch, and then spreads out to about an inch in width. back of the heel is covered with yellow leather. No. 33 is the most extraordinary specimen of this curious fashion, and that in which it was carried to the greatest pitch of absurdity, the heel being formed of an iron spike, extending 4½ inches from the sole, and ending with a surface only \( \frac{1}{2} \) an inch square. It is fastened to the leather heel by brass studs, and takes an oblique direction forwards, inwards, and downwards, as it is a left-foot shoe. The upper is formed of jean, and stuff bound and foxed with red and pink leather, and embossed with white silk. It is difficult to conceive how females managed to progress, or even to preserve an upright position upon such shoes as this, in which the feet must have been as much distorted in one direction as they are by the Chinese in another. The pictures of Hogarth and his contemporaries show that such extravagances in dress were common in his time, and they existed to even a later period in this country. No. 34 is a white satin slipper, with pointed toes, high heels like No. 30, but somewhat lower, being but 2 inches below the sole.—Presented by Aquilla Smith, M. D.

The only other articles of hide or leather in the Collection are some small portions of "buff" attached to bridle-bits and harness ornaments among the Bronze Collection; a dagger sheath, No. 1 in Rail-case H, which is 5 inches long, sewn upon one edge, with a loop at the top for attaching it to the

person; the portion of hide, No. 22 "Find" Tray I, Dublin, on the ground floor; and the saddle or horse-cover, No. 7 in the first Compartment of the Southern Gallery. This saddle (diallait) is of untanned cow-hide, with the red hair on the upper side, and is shaped like the large saddle-cloth or lower pad of the Spanish or oriental saddle. It is 38 inches wide, is much worn in front, and on each side it is perforated by three sets of apertures, through which were passed the thongs which attached the pad or stuffing to it, and which appear to have been fastened like those used in some of the shoes and buskins. It was found in the Bog of Springfield, near Dungannon, and -Presented by Robert Foster, Esq. In the original drawing of the taking of the Earl of Ormond by O'More, in 1600, may be seen such a saddle. Most of the antique trappings must have been of leather; but, with the exception of the specimens already alluded to, no other horse-furniture belonging to early times has been preserved.

## ORDER II.—TEXTILE FABRICS.

WOVEN AND KNOTTED FABRICS.—With the distaff and spindle (the knobs or whorls of which latter have several representatives, both in bone and horn, on Tray A, already described at p. 274) must be associated the art of spinning and weaving, and for this purpose the wool of the sheep and the hair of the goat afforded effective materials. The latter substance is not now used in this country, but was employed in making coarse carpets, particularly in the county of Clare, and in several of the western districts, within the last thirty years.

In Rail-case **H**, No. 6, may be seen a very remarkable specimen of manufactured hair-work, which was probably used as a fringe to some garment, one of the cloaks, for instance, so often referred to in Irish writings. It is composed of goat's hair, not woven, but tied or knotted together like a mat, in small bundles, with transverse bars of the same material,

each thread of the warp being subdivided between the crossings of the woof, so as to leave a clean interspace, as shown in

the accompanying cut
(Fig. 188) which represents, of the natural size,
a small portion of this
very curious ancient fabric. This fragment is
about 7 inches wide,
measured on the length
of the hair, and, as shown

Flg. 188, No. 6,

Fig. 189, No. 8.

in the illustration, is crossed in the middle by a broad band, the very beautiful plait of which is not seen on the wrong or reverse side. It was found 14 feet deep in Carrick bog, on the bank of Lough Sheelan, in the county of Cavan, in 1853, together with a fine woollen band, of a bright brown colour, Fig. 189, apparently woven, and to which it was probably attached: see No. 8 in Rail-case E. The foregoing cut is a faithful representation of a portion of this band, drawn the natural size. It and the hair-cloth were—Presented by Dr. Fleming. (See Proceedings, vol. vi., p. 19.)

Woollen Garments.—Having thus disposed of the skin, leather, and hair coverings, formerly employed by the people of this kingdom, we approach the period when the domestication of animals, or the introduction of such breeds from other countries, together with the art of weaving, were known to the Irish. Our histories are silent with respect to the manufacture of animal material in very early times, and the precise costume of any class prior to the English invasion has not yet been decided on. From the learned Essay of the Earl of Charlemont, first President of the Academy, we learn that the woollen manufacture of Ireland was celebrated in the beginning of the thirteenth century, when it appears to have been an article of commerce; but, long prior to that period, woollen fabrics must have been in general use for na-

tive dress.\* Eventually, we know it attained such celebrity as to excite the jealousy of neighbouring nations.

With the question of the employment of woollen material might be considered the whole subject of costume; but however inviting the topic, it would be out of place to enter at any length upon such a dissertation in a descriptive Catalogue, except so far as such inquiry may be necessary for the explanation of existing antiquities or of articles in our Museum. A few references are, however, necessary.

Light may be thrown on this obscure subject by referring to the following sources of information:—The annals, and other ancient records, in either manuscript or print; comparative philology, or an examination of the roots, precise meaning, derivations, and affinities with other languages, of the Irish terms employed to express different articles of dress; the illuminations in ancient books; the figure carvings on our stone crosses and shrines; a few drawings, maps, frescoes, and engravings;—and some sepulchral monuments.

We possess unmistakable evidence of our native population having adopted particular colours, of which deep yellow (croch), styled by English writers "saffron," was the most prominent; and so national, that enactments were made to limit the extent of some garments, and to prohibit altogether the adoption of others dyed this colour. The Four Masters, and also the Clonmacnoise Annalists, attribute the art of dyeing party-coloured clothes (the latter say purple, blue, and green) to King Tighearnmas, whose reign extended from A. M. 3580 to 3656. And in the first of these authorities it is stated, under the year of the world 3664, that his immediate successor, King Eochaidh, was surnamed Eadghadhach, "because it was by him the variety of colour was first put on clothes [no doubt woollen] in Ireland, to distinguish the honour of each by his garment, from the lowest to the highest. Thus was the dis-

<sup>\*</sup> Transactions, vol. i., Antiquities, p. 17. See also Hutchinson's "Commercial Restraints of Ireland."

tinction made between them: one colour in the clothes of slaves; two in the clothes of soldiers; three in the clothes of goodly heroes, or young lords of territories; six in the clothes of ollavs [professors]; seven in the clothes of kings or queens." (See O'Donovan's translation.) In a MS. H. 2, 18, in Trinity College, it is added to the foregoing, that all colours were used in the dress of a bishop.

That there was a tartan, or plaid, like that used by the Highlanders of Scotland, there is undoubted proof in the remains of costume preserved in this Collection. It appears to have been black and yellow or "saffron colour;" and probably each clan possessed a characteristic colour, and a plaid, as well as a special dress. All these have now, however, merged into the colour of the frieze worn in particular districts, such as the dark brown of Galway and Mayo; the light blue of Sligo; the silver-grey of Longford; the light drab of Meath, Dublin, and Louth; and the blue-grey, or powder blue, of Kerry, &c.

The female costume has undergone a very rapid change within the present century; for the scarlet or madder-coloured cloaks, blue mantles and crimson bodices and petticoats, which, like the friezes, were all of household manufacture, and for the most part coloured with native dyes, have given place to imported cotton and woollen fabrics. Within the memory of the present generation, in Connaught in particular, some boys wore yellow sheepskin knee-breeches, probably the last remnant of the ancient leathern costume. Long trousers are still considered by many old people there as an unwearable innovation. The large-caped frieze cota-mór, or "riding-coat," is daily falling into disuse; and the strong, heavy, felt hats, formerly worn as well for protection in the fray as against the weather, are giving place to caps and soft light hats.

Our only authentic histories afford but meagre references to dress or personal decoration; and the Fenian tales and bardic romances, in the garb in which they now appear, present too many anachronisms and incongruities to be worthy of quotation until they have been carefully edited and annotated.

With the first woollen garments may be associated metal weapons and ornaments, as the art of spinning and weaving may fairly be assumed to have been contemporaneous with the period when smelting and casting were brought to much perfection.

Our magnificent illuminated manuscripts, such as the Books of Kells and Durrow, in the Library of Trinity College, and the Irish works of the same class in the Monastery of St. Gall, and other continental libraries, except in very few instances, only show the costume of the ecclesiastics of the periods when they were written; and such dresses were common to all the clerics of Europe at that time.

The figures in the Books of Durrow and Armagh are altogether ecclesiastical. In the Book of Kells, a Latin vellum MS. of the Gospels, said to be as old as the sixth century,† and undoubtedly one of the most beautifully written and most elaborately illuminated works of its period in Europe, there are a few lay figures introduced by the artist, for the mere purpose of decoration, or to fill up space. As the work is thoroughly Irish in every respect, these figures may fairly be presumed to represent the costume of the country at the time they were painted. In some instances the illuminated initial letters are composed of human figures; and although the attitudes are of necessity grotesque, the costume appears to be, in most respects identical with that of the figures alluded to. The following facsimiles (traced and cut by Mr. G. Hanlon), give perhaps the oldest representations of Irish costume now extant. Fig. 190, from folio 200, is evidently that of a soldier, armed with a spear and round target, and placed either in the act of receiv-

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<sup>•</sup> See Dr. Ferdinand Keller's Essay, referred to at page 346.

<sup>†</sup> See the Rev. Dr. Todd's paper on "The Biblical Manuscripts of the Ancient Irish Church," in the Irish Ecclesiastical Journal for 20th Sept., 1846, No. 75.

ing an enemy, or compressed by the artist to suit the space on the page unoccupied with writing. The head-dress is yellow, with a mitred edge along the brow, as occurs on many other

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Fig. 190.

Pig. 191.

human heads in that work. The coat is green; the breeches, which come down below the knee, are light blue, picked out with red; and the beard and moustache brown. The legs and feet are naked. The shield is yellow; and the spear-head blue, exactly resembling some of those of iron in the Academy's Collection, in which the cross rivets project considerably beyond the socket. A line of red dots surrounds the outline of the figure—as is usual in the Book of Kells, and as may be seen in many of the initial letters, especially those used in this Catalogue, which are all copied from that work. At folio 201 there is a sitting figure, in the act of drinking from a circular goblet (Fig. 191), wearing a sort of turban, principally yellow, with a flesh-coloured border; the cloak is dark red, bound with yellow; the tunic blue, with a yellow border and green sleeve; the feet are naked, and partially concealed by the letters, which shows that the illumination was made after the text had been completed.

In the two small equestrian figures on page 300, we have another phase of costume. Figure 192, from folio 89, shows the ancient short cloak remarkably well, and, from a careful examination of both figures, it would appear that the horses were also clothed or caparisoned. The cap is yellow, fitting tightly to the head, and hanging down behind—or this head-dress may represent the natural hair. The cloak is green, with a broad

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Fig. 192.

Pig. 199.

band of bright red, and a yellow border; the breeches green; the leg covered, but the foot naked. The cover of the horse is yellow, but the head, tail, and such portions of the right legs as appear, are green. The word over which it is placed is engraved, to show the position of the illumination. Fig. 193 occurs on folio 255; the parchment has been injured underneath the cloak, but a sufficiency of the colour remains to show that it was green; the cap is yellow.

The initial N, at folio 253, represents two human figures. with beards, yellow fringed caps, and tight fitting green dresses, similar to those in the foregoing illuminations. In almost all instances throughout the Book of Kells, the cap is yellow, but in none is it conical. At folio 202, a number of heads are crowded into a large illumination, in which the head-dresses are principally of the turban shape, of a yellow colour, picked out with red, gold, or black. The cloaks on these figures are red, blue, green, and striped, but in no instance cross-barred, or plaided, like the modern tartan; and it remains for the archeeologist to determine whether their costume is intended to be native or oriental. At folio 99 there is an unfinished figure of a spear-man (like Fig. 190), in a recumbent attitude. holding a small, round shield in the left hand, and grasping a spear with the right. The outline was sketched in red, and a blue wash filled up all the parts intended for clothing. The figure is curious, as showing the process of illumination.

From these figures we see that, the lower limbs were clad in tight-fitting garments, generally blue, that reached a little below the knee, like the modern breeches; the legs and feet were naked,—the braccæ or chequered pantaloons not being then the fashion,—and the body was covered with a light tunic, with sleeves reaching as far as the wrist. The cloak, however, was the chief and most highly decorated garment. It is also manifest that the costume of the Irish was, at that period, both picturesque in shape and highly coloured.

Upon the fly-leaf of the Book of Ballymote, an Irish vellum manuscript, written in the year 1396, now in the Library of the Academy, there is a rude pen-and-ink sketch of a ship, supposed to represent the Ark, with eight figures in it. The costume of these is a simple, unornamented, close-fitting tunic, with sleeves, fastened round the neck and down the front, like the primitive leather garment already described at page 276, —possibly the artist wished to portray the oldest garments known, even by tradition. The figure of Noah is encircled with a broad belt, decorated with a buckle and tassel, and wears a crown like that of the English monarchs of the twelfth or thirteenth centuries, and resembling one of those represented in the Knockmoy fresco, described at page 317.

The figures on our Irish metal shrines and stone fonts are generally draped in ecclesiastical costume, and do not therefore assist in the present inquiry.

Our early sculptured monuments are chiefly of the same class, for although there are a few representations of Irish dress, the great majority of the figures thereon are clad in the ecclesiastical costume of Christendom, and not of Ireland alone, at the periods they represent. The number, beauty, and antiquity of the sculptured crosses in Ireland would afford ample materials for a large volume, descriptive of their respective styles of art, and character of ornament; the associations and historical recollections of the localities where they are placed; in many instances, of the biographies of the persons by whom they

were erected; the then prevailing ideas respecting the various scriptural scenes they represent; the legends or incidents which many of their sculptures commemorate, and the costumes of the figures in the various processions, religious services, and battles, &c.

Those crosses which contain figures are much more injured by time, weather, or the hand of man, than those on which the sculpture is principally ornamental. On that at Tuam, one of the very earliest in Ireland, there are some figures of men and animals, and the representation of a chariot; and the effigy in the Crucifixion wears a kilt. There are also figures of men, horses, and chariots, sculptured upon the base of the street cross at Kells. The cross at Kilclispeen, county of Kilkenny, is decorated with many human figures. On the base is a group of seven, each clothed in a tunic and cloak, with a hat like that of the ancient palmer, falling down behind upon the neck; six of these—shepherds or ecclesiastics—bear curved implements in their hands, more like handled celts than cro-In the Clonmacnoise crosses, the figures are chiefly those of ecclesiastics, but in two, apparently military, the beards are very long, and in one it is plaited; their cloaks are fastened with brooches on the right breast. In one of the Kells crosses there are some military figures, armed with circular shields, spears, and swords; a group of horsemen, with round targets and conical caps; and on the west side of the base of the street cross, there is a remarkable group of five fighting figures, two armed with spears, and holding shields of a peculiar lunette shape; the three others having swords and round targets.

• Dr. Petrie alone could write such a work as that sketched in the text. Mr. G. V. Du Noyer lately presented to the Academy a most valuable collection of drawings of sculptured crosses, and other incised stones. (See page 252.) It is to be hoped that some day they may be published. Mr. O'Neill has recently published folio lithographs of several of our Irish crosses; and it is to be regretted that so picturesque and expensive a work should not have attached to it some letter-press descriptions of antiquarian value, instead of unworthy personalities and unseemly criticisms upon established facts, respecting the origin and uses of the Round Towers.

Where the military figures are in tolerable preservation, and when viewed in a particular light, we can always trace the shield, with its central *umbo*, or boss; and on many, the broad spear, the curved-handled celt, and the long iron sword, with the straight cross-guard, resembling the Danish pattern; but we do not find the very ancient leaf-shaped bronze sword anywhere represented.

The magnificent crosses of Monasterboice are covered with human figures, chiefly, however, connected with scriptural An examination of some in the compartments upon subjects. the short cross erected by Muiredach, the Tanist Abbot of Armagh, about the middle of the ninth century, will assist the present inquiry. In each of the three compartments on the west side there is a group of three figures, evidently the same personages repeated. The history which these sculptures are intended to commemorate evidently commences in the lowest entablature, where an ecclesiastic in a long cloak, fastened with a brooch, and holding a staff in his hand, stands between two figures, either soldiers or robbers, each armed with a long Danish sword, and dressed in a tight jerkin and trunk hose, plaited round the thigh, and ending above the knee. Both have long moustaches, and their head-dresses consist of close caps falling behind, not unlike the present Neapolitan cap. Some of these resemble, in a remarkable manner, the illuminations figured in the Book of Kells, previously described. In the compartment over this, the same personages are represented as students, each with a book, but the soldiers have assumed the ecclesiastical garb, although they retain the moustache. In the top compartment, the figures are again repeated, all in long flowing dresses, the central one—then, perhaps, aged, or at the point of death—is represented giving his staff to one, and his book to the other of his former assailants.\*

See the Author's work upon "The Beauties of the Boyne, and its Tributary the Blackwater," Second Edition, p. 802, containing the woodcut illustrating the legend mentioned in the text, and also the cut (Fig. 194) on the next page.

In the accompanying illustration, drawn by Mr. Wakeman, in 1846, from another compartment of this cross, is shown a scene, which probably represents an execution. In the lefthand corner is seated a figure, perhaps a judge or Brehon,

wearing a long gown or tunic, which reaches nearly to the feet, and a head-dress which falls over the shoulders. The right hand holds a curved drinking-horn, possibly figurative of some judicial ceremony, and on the lap rest a long, straight sword, and round buck-

Fig. 194,

ler. These may, however, belong to the next figure, who is armed with a celt or curved implement, held in the left hand, which is upraised, as if in the act of striking the third figure, which kneels before it. This second figure has a shorter tunic than the first, and a small hood or cape hanging from the head and shoulders. The right hand holds either some article attached to the captive's feet, or a sort of paddle; but which, owing to the great age and weather exposure of this cross, it is now difficult to determine. The captive has a conical cap, and is armed with a circular shield, and a long Danish sword. The left hand is raised to the head, and the figure seems to shrink from the impending blow of its adversary. The fourth resembles the second in costume, and merely carries a shield.

The effigies on our later sepulchral monuments are, with few exceptions, to be described hereafter, those of Anglo-Normans or Anglo-Irish; and they do not differ much from the same class of representations in Great Britain.

If we seek for documentary evidence before the period of the Anglo-Norman invasion, the earliest accessible authority upon the subject of costume is the "Book of Rights," already quoted in this work. There, among the tributes paid by the different states or kingdoms of the Irish Pentarchy, we read of the cloak or brat, the outer garment,—of which the following varieties are specified:—"A thousand cloaks not white,—speckled cloaks,—cloaks with white borders,—red cloaks,—red cloaks,—red cloaks,—green cloaks not black,—blue cloaks,—royal cloaks,—green cloaks,"—and "green cloaks of even colour,—cloaks of strength,—coloured cloaks,—chequered cloaks of lasting colours,—napped cloaks, with the first sewing, which are trimmed with purple,—purple cloaks of fine brilliance,—purple cloaks of fine texture,—purple cloaks of four points,—and cloaks with golden borders." The cochall, hooded cloak or cowl, is seldom mentioned among these tributes.

The matal (which word is not translated by O'Donovan), was probably smaller than the cloak, and may have been worn beneath it, or as an ordinary coat, and it is remarkable that on only one occasion, where we read of its having a "golden border," is it mentioned that that article of dress was decorated; but we read of "fair beautiful matals,—royal matals," and also of "matals soft in texture."\*

The tunic, inar, formed a considerable portion of the ancient tributes, and is described as "brown red,—deep red,—with golden borders,—with gold ornaments,—with golden hems,"—and also "with red gold."

The leann, translated by O'Donovan "mantle," would appear to have been a white woollen garment, probably a sort of loose shirt, but, from its being almost invariably mentioned along with "coats of mail," it lends probability to the conjecture that it was only used in connexion with armour. Thus, the chief of Cinél Eanna was entitled, among other tributes, to receive "five mantles, five coats of mail;" and the king

<sup>&</sup>quot;Matal was probably another name for the Fallaing, which in latter ages was applied to the outer covering or cloak; but this is far from certain. Matal is applied in Leabhar Breac to the outer garment worn by the Redeemer."—See note to Leabhar na g-Ceart, p. 38.

of Tulach Og, to "fifty mantles, fifty coats of mail," —but "mantles [leanna] of deep purple" are also enumerated.

When flax and hemp were first introduced, has not been recorded. Linen shirts were in use at the time of the English invasion, and are said to have been of immense size, and dyed a saffron colour. Notwithstanding the suitability of our soil to the growth of flax, it was only on the suppression of our woollen manufacture and the introduction of the Huguenot and Dutch settlers into Ulster, that this article of native produce attained celebrity.† We do not possess any specimen of ancient linen in the Academy's Collection; and the only articles containing flax or hempen fibre of any great age are the sewings of some vellum manuscripts, in particular the Leabhar na h-Uidhre; but several of our old works of that class are sewn to horse-skin bands, with strong twisted silk.

The variegated and glowing colours, as well as the gorgeous decorations of the different articles of dress enumerated in the Book of Rights, added to the brilliancy of the arms, must have rendered the Irish costume of the eighth and ninth centuries very attractive. It is remarkable that, except helmets, Benean, in his relation of the Tributes and Taxes, does not enumerate any form of head-dress. Most of the Irish appear to have used their luxuriant hair as a natural covering for the head, even in the time of Elizabeth, and the only term employed by authors for our ancient head-dress is that of barread (from the mediæval Latin word, birretum), a high conical cap, somewhat between that known as the Phrygian,

The subject of mail and armour will be considered under the head of Bronze and Iron Weapons. Dr. O'Donovan has afforded the writer the following note:—
"The word lean (which has nothing to do with léine, a linen shirt) is explained in a MS. in Trinity College Library, H. 3, 18, p. 75, and in Cormac's Glossary, sub voce lenn, as a white brat of wool; and the word is understood in this sense by Colgan and the writers of the seventeenth century. The word is simply rendered brat by O'Clery." The Gaulish term lenna occurs in Isidore.

<sup>†</sup> See an Essay on "The French Settlers," in the Ulster Journal of Archeology, vol. i., page 209.

which was common in England in Saxon times, and the pointed grenadier's cap of the last century, or the present Persian, with which all oriental travellers are acquainted; but the material of which it was composed has not been determined; perhaps it was formed of different textures or skins. The Irish helmet, of which we possess a specimen, was of this shape.

In the plan or perspective view of the taking of the Earl of Ormond in 1600, preserved in the Library of Trinity College, the figure of O'More is represented in a short, red cloak, fringed round the neck, a high conical cap or barread of a light colour, and tight-fitting pantaloons.

Cloaks—the cochall, and the fallaing—were, however, the chief articles of dress in early times, but were probably different either in shape or material. In Cormac's Glossary, the former term is derived from the Latin cucullus; and, says Ledwich, "if any reliance is to be placed on the legendary life of St. Cadoc, cited by Ware, the Irish cocula, in the middle of the sixth century, was a cloak, with a fringe [such perhaps as that figured at p. 295] or shaggy border at the neck, with a hood to cover the head."†—Antiquities of Ireland, p. 359.

Scarlet cloaks were commonly worn by the Irish chieftains in the fourteenth century, and, as already stated at page 297, dark crimson-red was the prevailing colour of those used by

- . \* The cap of rushes made by children gives a good idea of the ancient barread, of which it is possibly an imitation. The old leprechaun, or fairy shoe-maker, was always described as wearing knee breeches and a conical cap; although the moderns usually represent him in a three-cocked hat.
- † Mr. Whitley Stokes' "Irish Glosses," published by the Archæological and Celtic Society, contains much valuable information on the true etymology of these Irish words; and will be a lasting monument of the deep learning and vast research of the author. Cocall glosses Cassulla, and is, he says, one of those Celtic words which, by the influence of the Church, has become universal. "The Cuculla, sometimes called casula and capa, consisted of the body and the hood, the latter of which was sometimes specially termed the casula." In the Breton it is kougoul, in Cornish cugol, and in English cowl. Slèstan, according to the same writer, was "probably a cloak covering the thighs and hams,"—and fallaing, a mantle, may, he says, be connected with pallium; and he quotes the Welsh expression in which the same word

the female peasantry until the last few years. In early times the cloak was furnished with a hood, which could be drawn over the head like the Suliote capote; but it does not seem to have been worn much longer than the time of Spenser, when enactments were made forbidding its use.\* It was fastened either in front or on the right breast with a pin or brooch; and the very general use of this and other cloak or scarf-like garments may account for the circumstance of so many fibulæ of different kinds being found in this country. Walker, in his "Historical Essay on the Dress of the Irish," gives the figure of a king draped with a long flowing cloak, fastened with a brooch across the breast, and reaching to the ground (see Plate V. Fig. 1). This he calls the "canabhas." It was a long, graceful robe or cloak used by kings, brehons, and priests, and of which we have a vestige in the heavy-caped frieze cota-mor of the modern Irish, often worn hanging from the shoulders. The ancient cloak, no doubt, varied in shape, size, and probably colour, at different times and in different localities; but it was evidently the analogue of the sagum of the Celtic Gauls, described by Plutarch as "parti-coloured;" the thick, woollen læna of the Belgæ; the reno of the early Germans; the chlamys of the Greeks; the pallium or toga of the Romans; the bornous of the Arab; the plaid of the Highlander; the capote of the Al-

is used, mal y Gwyddyl am y ffaling, "like the Irishman for the cloak." In a MS., quoted in the same work, we find broit buit used in a passage thus translated, "an old man in a yellow cloak, in a blue tunic of full size," which, while it explains the meaning of the word brat, is also illustrative of the colours used in Irish costume.

\* In Dineley's Account of his Visit to Ireland in the reign of Charles II., published by Mr. E. P. Shirley in the Kilkenny Archæological Journal, it is stated—"The common people of both sexes weare no shoos, after the English fashion, but a sort of pumps called brogues. The vulgar Irish women's garments are loose-body'd without any manner of stiffening." And again, of these common Irish, he states—"Never at any time using hats, after ye manner of the vulgar English, but covering and defending their heads from rain with a mantle, as also from the heat of the sunne to which Spanish lazy use the Irish men apply their cloaks."—Vol. i., N. S., p. 186.

banian; and the abbas of the Turk and most oriental people, including the Hebrews.

In the twelfth century, Giraldus Cambrensis thus briefly describes the costume of the Irish: they "wear thin, woollen clothes, mostly black, because the sheep of Ireland are in general of that colour; the dress itself is of a barbarous fashion; they wear cappuces, which spread over their shoulders, and reach down to the elbow. These upper coverings are made of fabrics of different textures, with others of divers colours stitched on them in stripes. Under these they wear woollen fallings (phalingæ) instead of the pallium, and large loose breeches and stockings in one piece, and generally dyed of some colour."— Topographia Hiberniæ, Book iii., chap. ix. This description of the braces or trowsers accords perfectly with a specimen of this portion of dress in the Academy's Collection. The same author tells us that the native Irish went "naked and unarmed to battle;" by which latter assertion he must have meant, unprovided with defensive armour, in contradistinction to the Anglo-Norman soldiery, who, at that period, wore metal breast-plates and helmets. That armour had, however, been used by some classes of the Irish, is proved by the fact, that "coats of mail" (in Irish luireacha, from the Latin lorica) are enumerated among the Irish tributes, at least two centuries prior to the visit of the Welsh historian. (See Book of Rights.) The former statement is possibly founded on fact; for we know that another Celtic race, the Highlanders of Scotland, stripped off the greater portion of their clothes at the battle of Killiecrankie, several hundred years later.

From an illuminated copy of Giraldus, in the possession of Sir Thomas Phillipps, Bart., some small sketches have been given by Mr. Planché, in his History of Costume, in which the cloak and trews, as well as a short jacket, like the bauneen, or flannel vest of the modern Connemara peasant, are represented. Diarmaid Macmurrough is figured in a short tunic and tight trews; with a long beard, and uncovered

head, as shown in the accompanying figure, given the natural size, from the drawing in the original manuscript, and for which we are indebted to that distinguished antiquary,

The ex-king of Mr. Albert Way. Leinster being at that time an ally of the English, this portrait may very probably have been taken from life. He is armed with a long-handled hatchet or battleaxe, the blade of which is shaped like some specimens in the Museum (see the Iron Collection in the Southern Compartment on the ground-floor, Trays It does not resemble the I and IX). gallowglass axe of later times; but is that known by the name of the Sparthe-a "sparthe de Hibernia," such as "Gentle Mortimer" had in his armoury at Wigmore Castle, in 1322. The hair is sandy; the tunic or short coat (inar) is of a brown colour, fastened round the waist with a belt, and bound tightly to the wrists with bands, that were probably ornamented. The tight-

Fig. 198.

fitting trews are green. Of this memorable Irish character, Giraldus elsewhere says: "Dermon Mac Morogh was a tall man of stature, and of a large and great bodie, a valiant and a bold warrior in his nation; and by reason of his continuall halowing and crieng, his voice was hoarse: he rather choce and decided to be feared than to be loved: a great oppressor of his nobilitie, but a great advancer of the poore and weake. To his owne people he was rough and greevous, and hatefull to strangers; he would be against all men, and all men against him."\*

 <sup>&</sup>quot;Sylvester Giraldus Cambrensis, his vaticinall Historie of the Conquest of Ireland," book 1., chap. vi. Hooker's Translation, 1587.

Mr. Way has also furnished us with the two following illustrations from the same source. That given below (Fig.

or fallaing of olive green, like those in the Book of Kells, already described at page 300.\* The trews are, in the original, of a light brown; this figure also wields the sparthe or battle-axe, but with a shorter handle than in the foregoing.

The third figure, also procured from the same Fig. 196.

rare manuscript, is one of great interest. It represents a scribe seated in a bird-cage chair (such as existed in many

• In that truly national work, "The Sculptured Stones of Scotland," published by the Spalding Club, we find many examples of costume that serve to illustrate, in a remarkable manner, the dress of the ancient Irish, or the Celtic race generally. The hooded clock or cochall, in particular, is so well represented as to leave no doubt respecting its shape, and the way in which it was worn. See, in particular, the plate of the incised pillar-stone at St. Madoe's, near Perth. On that monument there are three equestrian figures, not unlike those from the Book of Kells, represented at page 800 of this work; each is in the same attitude, with the legs projected forwards, and the body covered with a short triangular clock, the bood of which is carried up over the head.

Every day's observation and research bring to light new affinities with early Irish coetume, and it is only by a careful study and comparison of the primitive pictorial representations of other countries with the memorials still existing in our own, that we can form a fair idea of the early costume of the Irish. In the great French work, "Herculaneum et Pompeii," tom. v., pl. 20, there is a battle scene copied from a mosaic at Pompeii, in which the arms and dress of the combatants are almost identical with those of ancient Ireland. It is supposed to represent the battle of Arbela, between Darius and Alexander; but it is just as likely to illustrate an engagement with the Gaula. The vanquished are clothed with tight-fitting trowsers, close tunics, several of which are plaided, and cloaks with the hood coming over the head, precisely like the Irish cochail. The chief figures wear torques round the neck, and bracelets on the wrists. Some fight in chariots, and are armed with bows and

parts of the country until very lately); before him is a deak, which supports the work he is engaged on, and underneath is the inscription, "The Scribe writing the marvellous Kildare Gospels." The person is probably an ecclesiastic, as the top

of the head is shaved. He wears a short jacket of greenish-brown, fringed round the lower edge; the trowsers are light brown; and from beneath the desk hangs a short drapery of a green hue, probably a fold of his cloak. The right hand holds a pen, and in the left, is what appears to represent a knife, and with which he keeps the page 2 in its place. In each of the figures

Fig. 197.

the braces fit tight to the ankles; and the shoes or buskins, which are long and pointed, rise high over the instep, like those seen in the Knockmoy fresco, described at page 318.\* "The

arrows, long spears, and leaf-shaped swords. Besides the torques round the neck, slender, twisted bars, apparently of metal, encircle the arms, a short distance below the shoulder. In some of the figures the hood is retained in its place by a narrow frontlet, apparently of gold. The colour of the garments in the figures on the mosaic are also peculiarly Irish. In some, the cloak is yellow; the mantle, dark red; and the tunic, purple, edged with white. This latter is, moreover, sprinkled with triple stars of gold, arranged after precisely the same fashion as those figured in the Book of Kells (see Figs. 191, 192, and 198). The chariot in which the principal figure stands, resembles some of those figured on our sculptured crosses. The charioteer wears a pointed cap, a green tunic, and a tartan vest. The head-dress of others is yellow. All the vanquished wear beards, and their hoods or head-dresses envelop their chins. My attention was called to this remarkable plate by Mr. C. M. O'Keeffe, a writer who has devoted much attention to the subject of Irish costume. Virgil's description of the dress of the Gauls accords, in almost every particular, with the foregoing : En. viii. For other illustrations of costume, see Dr. Petric's essay on the "Seals of Irlah Chiefs," in the Irish Penny Journal, page 356.

\* Among the references to early Irish costume given in our Irish MSS., we read of the Twighean, or the chief poet's cloak, composed of the skins of birds, evidently those of water-fowl. See Cormac's Glossary, also the "Dialogues of the Two Sages" in the Library of Trinity College. "Twigen, quasi toigen, from toga, for the toga is vestis pretiosissima, a kind of most precious garment. Aliter twigen, i. e. twig-en, for

Irish, like the Gauls," says Lynch, "wore shoes with long, slender, conical tops, and only one sole, for the greater celerity in running."—Cambrensis Eversus, chap. xiii.

Sir James Ware says—"A frieze cloak, with a fringed or shagged border, was the outward garment of the Irish, and this they wore almost down to the ankles." And his commentator, Harris, adds— "The Irish mantle, with the fringed or shagged border sowed down the edges of it, was not always made of frize or such coarse materials, which was the dress of the lower sort of people; but, according to the rank or quality of the wearer, was sometimes made of the finest cloth, bordered with a silken or fine woollen fringe, and of scarlet and other various colours. Many rowes of this shagg or fringe were sowed on the upper part of the mantle, partly for ornament, and partly to defend the neck the better from the cold, and along the edges run a narrow fringe of the same sort of texture."

Although the word fallaing or filleadh is not met with in Irish works older than the twelfth century, both the article and the name have come down to modern times, for fifty years have not elapsed since it was worn in parts of the west of Ireland. This garment consisted of a triangular piece of home-made, wool-dyed, blue cloth, with the corners rounded off, and about two yards wide. It was carried up over the head, and fastened on the breast by an iron pin or dealg, and, being of a triangular shape, and worn somewhat like a scarf, shawl, or shepherd's plaid, a fresh portion could be brought up on the shoulders from day to day. It was popularly called a faullen.

the tuigen of the poets is made of the skins of white and variously-coloured birds; up to the girdle it is of the necks of drakes, and from the girdle to the neck, of their tufts."—Cor. Gloss., in voce Tuigen.

<sup>\*</sup> The Antiquities of Ireland. Dublin, 1762. Fol., vol. ii., p. 175.

<sup>†</sup> The triangular shape and rounded corners of this fallaing contrasts with that form of cloak described at page 305, as having "four corners." No doubt this was the Irishman's plaid, which, when the Scot economized, he called it a filleadh-beg (fillibeg), the little fillaing or kilt. Another outer garment worn in

Even yet many of the female peasantry, and all the beggars in the south and west, use, out of doors, a sheet, quilt, or blanket, as a mantle or outer covering, generally drawn up over the head, and fastened on the breast, as described above.

The ancient Celtic brace, the bracked, speckled, striped, chequered, or many-coloured leg coverings, called in the native tongue truis or triubhais, do not require any general description here, as this garment is figured at page 327 (see Fig. 207).

In the illuminated metrical French history of the Irish campaign of Richard II., published in the Archæologia, vol. xx., we find many curious references to the state of the country, the mode of warfare, and the costume of that period. One of the illustrations represents Art Mac Murrough on horseback, riding fiercely down a mountain pass, bare-footed, without a saddle, and in the act of casting a long spear. His costume consists of a conical cap of the Persian shape, a wide cloak flowing loosely on the shoulders, and an inner spotted garment with sleeves, descending like a gown or skirt to the He also wears a long and rather pointed beard, acankles. cording to the ancient custom of the Irish.\* The whole figure resembles some of those represented in the Nineveh sculptures. Strutt asserts, but does not state on what authority, that the chieftain's robe was "light pink." Behind their chief ride two mounted warriors, also armed with spears, and with the

Ireland some years ago was the "Jock-coat," often of frieze, a long great-coat, with sleeves, a hood or cape, and a broad belt which fastened it round the waist. It was worn by both sexes, and, for a time, became fashionable in the upper ranks, even as now the ancient Irish brooch is admitted to polite society, and the crimson cloak of the Claddagh is esteemed becoming. In addition to the various references already given, the reader is referred to articles on "The Ancient Dress of the Irish," in "The Celt" for 1858, pp. 46 and 65; and in the Ulster Journal of Archæology, vol. v., p. 93, and vol. vi., p. 316.

• Wearing the beard long, as we know the ancient Irish did, serves to account for the circumstance of no ancient bronze razors having been discovered in this country, while such articles, as well as tweezers, are found in Denmark in the greatest abundance. They decrease in frequency as they approach the north.

hoods of their cloaks drawn over their heads, they present all the characters of the fiercest Bedouin tribes.\*

One ancient specimen of native art still remains in the country; the curious fresco painted on the wall of the Abbey of Knockmoy, near Tuam, county of Galway; a full-sized copy of which, made by Mr. Macmanus for the Dublin Exhibition in 1853, now hangs in the tea-room of the Academy. It consists of two portions: the lower represents the oft-repeated scene of the martyrdom of St. Sebastian, naked, bound to a tree, and pierced with arrows; with two archers in the act of drawing their bows. To the right of the centre there is a very fine sitting figure, representing the Almighty, having on the head animbus, resembling one of our golden semilunar ornaments; the right hand is raised in the act of benediction, and in the left is some square object, believed to be part of a cross. Beyond this figure is an imperfect one of a recording angel, holding a balance, but its outlines are much effaced. An opinion, first promulgated by Ledwich, has long existed, that this scene represents the execution of young Diarmaid, the son of Mac Murrough, King of Leinster, when he was a hostage with Roderic O'Conor, King of Connaught, at the time

\* It is more than probable that all the inhabitants of the British isles were a costume common to the Gauls and Germans at the same period; for Tacitus, writing in the first century, says of the Germans, they wear "a loose mantle (sagum), made fast with a clasp, or, when that cannot be had, with a thorn. The rich wear a garment, not, indeed, displayed and flowing, like the Parthians or the people of Sarmatia, but drawn so tight that the form of the limbs is palpably expressed."—De Mor. Ger., sec. xvii.—Here we have a perfect description of the brat or mantle, and the braccs or trews; and the former, moreover, fastened, like the Irish, with a thorn or dealg. Again, the same author, in his History, describing Cæcina, the Vitellian general, says, he wore a party-coloured mantle, and breeches, used only by savage nations, and not by the Romans. In the twelfth century, we read in Johnstone's edition of the "Antiquitates Celto-Scandica," that Harold Gillius wore an Irish cloak: " Hibernico fere utebatur amictu veste nimirum curta cuique."-p. 246. This chieftain, it is said, generally wore the Irish dress, viz., "a shirt, and braces extending to the ankles, bound by latchets beneath the soles of the feet; an Irish cap on his head; besides, he carried a spear in his hand."—p. 248. See also Laing's translation of " The Heimskringla," vol. iii., p. 194.

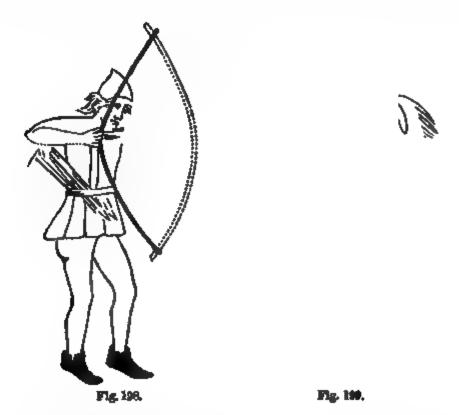
of the Anglo-Norman invasion in 1172. When, however, the question was brought under the notice of the Academy in 1853, Dr. Todd showed clearly that the subject of the painting was the martyrdom of St. Sebastian, and not the execution of one of the hostages at Athlone, 230 years before the picture was painted. See "Proceedings," vol. vi., p. 3.

In the upper compartment there are six crowned figures, -three skeletons, and three draped kings,—the popular medieval Moralité, entitled "Le dit des trois morts et des trois vifs;" but believed by Irish antiquaries to represent living and extinct members of the O'Conor line.† It has been proved that this work was executed about the year 1400, by Connor O'Eddichan, a native artist, for Malachy O'Kelly, chieftain of Hy-Many, who also caused a monument to be erected in that abbey, to the memory of himself and his wife, Finola. If the original interpretation of Ledwich and others were correct, we should here have undisputed evidence of the costume of the Irish in three grades of society,—king, brehon, and soldier,—either of the period which the drawing was intended to illustrate, or the day of the artist who designed it; but that has not been proved. With, however, the exception of the principal figure in the lower compartment, which is undoubtedly that of the Deity, the garb of all the others appears to be Irish.

The archers are clad in tight yellow hose or braccæ, and short, greenish jackets, fastened round the waist with a belt,

- \* In the famous fresco painting by Pietro Perugino, in the church of Panicali, in Italy, representing the martyrdom of St. Sebastian, there is a figure of the Deity in precisely the same attitude as that in the Knockmoy fresco; and even the colouring of the robe is the same: yet Pietro did not flourish till the end of the fifteenth century. See the Chromo-Lithograph, published by the Arundel Society in 1856.
- † See Mr. Curry's letter to Dr. Todd, printed in the Proceedings, vol. v., p. 3. See, also, Dr. Petrie's description of the fresco, in the Dublin Penny Journal, vol. i., p. 2. The public are indebted for the preservation and exhibition of this ancient monument of Irish art to the zeal of Dr. Lentaigne. A somewhat similar mural painting, and of about the same age, exists in the church of Ditchingham, Norfolk.—See the Archæological Journal, vol. v., p. 69.

which also holds the quiver. One is bare-headed, and the other wears a small conical head-dress, known as the Phrygian cap, in which the Anglo-Saxon peasantry are occasionally represented (see Fig. 198). Their bows resemble those used in England in the eighth century, in which the strings are "not made fast to the extremities, but permitted to play at some distance from them." This figure measures 5 feet 3 inches; the left arm and part of the bow have been effaced.



The royal personages, of whom the central figure, 5 feet 11 inches high, including the crown, is represented above, are also partially obliterated. They are dressed mostly alike; each wears a loose green tunic, with a white border, gathered round the waist by a belt, and also a short, green cloak, together with a thick roll of stuff round the neck. The artist evidently intended to represent a hawking scene. In this figure there are indistinct indications of the bird which was held on the left wrist; while the right hand appears to have been raised, as if in the act of caressing it. The dress of the third

<sup>\*</sup> Strutt's " Sports and Pastimes of the People of England," London, 1845, p. 49.

king, who is armed with a sword, differs slightly from that of his companions; he appears to have just flown his hawk, a fragment of the painting of which still remains, as shown in the foregoing cut, Fig. 199. Each of the figures in this painting, kings and archers, wears precisely the same description of buskin or half boot, slit at the side.

As regards costume, the most remarkable features connected with these figures are the crowns. They appear to be merely emblematical, in accordance with the conventional mode of representing a king at that period. Those on the heads of the kings are evidently the same as the contemporaneous English crowns of the time of Edward III., when, indeed, the current coin of this country bore that image. Those on the skeletons are of an earlier date. Moreover, no proof has yet been adduced to show that the Irish kings or chieftains ever wore crowns of this description, or that coronæ, or any such insignia of royalty, were used at their inauguration.\* The magnificent golden diadems, which we still possess, are of a totally different description from those of British For the further consideration of this subject, see crowns. the section on Gold.†

- \* The crowns of gold and silver, with precious stones, used as decorations of our early shrines, or placed upon the heads of figures of the Virgin, &c., &c., or suspended in various parts of our early churches, afford no proof whatever of such articles having been used as emblems of royalty by any of the Irish kings. See Petrie's "Ecclesiastical Architecture of Ireland and Round Towers, &c.," in the Transactions, R. I. A., vol. xx., pp. 196, 204.
- + As a good example of the pleonastic, inflated style of historical romance-writers, as well as to afford an idea of the traditional Irish costume, the following description of the dress of Conn of the Hundred Battles, extracted from Mr. Curry's "Translation of the Battle of Magh Leana," said to have been fought before our Christian era, will serve as an illustration of the foregoing text:—"Then Conn arose, and put upon his fair skin and beautiful body his battle-axe and combat suit, namely, his dark-gray, flowing, long, wide, akin shirt, with its three beautiful, varied, well-coloured wheels [brooches] of gold in it. He put on his well-fitting coat of distinction, made of wonderful cloth of the flock-abounding, beautiful land of promise, bound with girdles and buttons, and with embroidered borders of red gold, so that it fitted to every part

Both sides of the large, bone book-cover, referred to at page 255, are elaborately carved with quaint devices; and on the external surface is displayed a shield, bearing the heraldic device of the Fitzgeralds, beneath which is a group of figures, which, by permission of the owner of the article, we are here enabled to present, as another illustration of Irish costume, of about the same period as that of the Knockmoy fresco just described. It represents five figures engaged in some sort of game; each is clothed with a short jerkin or tunic, made full, and plaited below the waist, with slashed sleeves, which are also striped and parti-coloured. They also wear striped and plaited vests, and two of them have knee-breeches. All may have been intended to be so clad; but there are three not so

which could be touched by the sharp point of a hard needle, from the top of his head to the calves of his legs. Outside this, he put on a heavy, firm, strong-ringed coat of mail, with its firm head-piece of the same kind. He put his light, strong legarmour, made of fine spun-thread of finndruine, upon his legs, giving a dignity to his noble carriage, and being a protection against cutting, and a support in resistance. He put his two lacerating gloves upon his hands, having the colour of snow freely to be seen upon them, and possessing the attribute of victory in the field of battle, and that no erring cast should be thrown from them, by day or by night. He put upon his neck his easy, thick, noble, light collar, and upon his head his diadem [minn] of a chief king, in which were fifty carbuncle gems of the beautiful rare stones of eastern India, artistically set with beautiful, bright silver, and with well-coloured gold, and with other precious stones. He placed his blue, sharp-edged, rich-hilted sword at his convenience, and his strong, triumphant, wonderful, firm, embossed shield, of beautiful devices, upon the convex slope of his back. He grasped his two thick-headed, wide-socketed, battle spears, with their rings of gold upon their necks."—See "Cath Mhuighe Leana," published by the Celtic Society, p. 111.

Of the same class, both in style and description, is the following account, written in 1459, of Donagh Mac Namara, chief of Clann Cuilen, in Thomond, harnessing himself for battle:—"His noble garment was first brought to him, viz., a strong, well-formed, close-ridged, defensively-furrowed, terrific, neat-bordered, new-made, and scarlet-red cassock, of fidelity; he expertly put on that gold-bordered garment [or cotun], which covered him as far from the lower part of his soft, fine, red-white neck, to the upper part of his expert, snow-white, round-knotted knee. Over that mantle he put on a full-strong, white-topped, wide-round, gold-bordered, straight, and particoloured coat of mail, well-fitting, and ornamented with many devices of exquisite workmanship. He put on a beautiful, narrow, thick, and saffron-coloured belt of

highly finished as the two others. They have all long, flowing hair; two are bare-headed; two wear round hats with up-



Pig. 200.

turned brims,\* and the fifth is crowned with a peculiar head dress, possibly belonging to the game, and decorated with

war, embellished with clasps and buckles, set with precious stones, and hung with golden tassels; to this belt was hung his active and trusty lance, regularly cased in a tubic sheath, but that it was somewhat greater in height than the height of the sheath; he squeezed the brilliant, gilt, and starry belt about the coat of mail; and a long, blue-edged, bright-steeled, sharp-pointed, broad-sided, active, white-backed, half-polished, monstrous, smooth-bladed, small-thick, and well-fashioned dagger was fixed in the tie of that embroidered and parti-coloured belt; a white-embroidered, full-wide, strong, and well-wove hood (PSabal) was put on him over his golden mail; he himself laid on his head a strong-cased, spherical-towaring, polishedshining, branch-engraved, long-enduring halmet; he took his edged, smooth-bladed, letter-graved, destructive, sharp-pointed, fight-taming, sheathed, gold-guarded, and girded sword, which he tied fast in haste to his side; he took his expert, keen-pointed, blue-coloured, and neat-engraved dart in his active right hand, in order to cast it at the valiant troops, his enemies; and last, he took his vast-clubbed, strongeyed, straight-lanced, flerce-smoking, and usual spear in his left, pushing and smiting therewith."—See O'Donovan's Introduction to the Archeological edition of the Battle of Magh Rath, p. 13.

Our Irish historians have not done much towards the elecidation of early national costume, and no native novelist has yet appeared with the Scott-like power of blending fiction with fact, or fazing history with romance. One of the few attempts at the introduction of Irish costume into such a work is that made by Maturin, in his romance of "The Milesian Chief,"—vol. i., p. 127.

• In the sketch of the Irish Court of Exchequer, engraved from an original drawn in the reign of Henry IV., which is in the Red Book in the Chief Remembrancer's three feathers. The external figures are represented in the act of throwing rings or quoits, and the central one is armed with a short, straight sword, like No. 158, on Tray H, in the Collection of Iron Articles. Although but rudely sketched, this group possesses much character, and is, most likely, accurate in costume.

Upon the reverse side, the ornamental engraving is peculiarly Irish. This bone, which is 19½ inches long, 11½ wide, and ½ thick, was found in the neighbourhood of Swords, county of Dublin. The figures are drawn to scale, and in the original the tallest is 2¾ inches in height.

On the old seal of the Corporation of Dublin there are several figures, whose costume, possibly that of the fifteenth century, merits inspection. Enlarged drawings of three of these, figured below, from gutta percha impressions in the Academy's collection, afford examples of the dress, arms, and musical instruments of that period. The first (Fig. 201) is that of the steersman seated in the stern of the ancient galley,

Fig. 201.

Fig. 202.

Fig. 208,

which forms a portion of the City Arms; and in which, figures representing the Mayor, the Recorder, and the Corporation cup-bearer, are seated. The head-dress is evidently the hood or cowl of the ancient cochall cloak. The second illustration (Fig. 102) is that of a soldier firing a cross-bow from the

office, two of the figures, apparently officers of the court, wear hats similarly shaped. See "Proceedings and Transactions of the Kilkenny and South-East of Ireland Archeological Society," vol. iii., p. 46. top of one of the turrets over the city gate. His arm projects from the surcoat commonly worn at that period, and on his head is a conical cap or helmet, strengthened with radiating bars of iron, and in shape combining the form of the Phrygian cap, the high barread, and the pointed galloglass helmet.\* The mode of pressing the spring trigger of the cross-bow is well shown in the old seal, which exhibits much greater accuracy both in design and execution than the modern one now in use. The third figure (103), which wears a cap somewhat similar to the foregoing, is that of a warder on the topmost tower, blowing a short, curved horn. Other figures, bareheaded, are represented on the lower towers, blowing long and nearly straight horns.†

The caricatures attached to Derricke's doggrel "Image of Ireland," written in 1578, apparently to pander to the worst tastes of the times of Sydney, Fynes Morrison, and Spenser, are not of much value as specimens of the costume of the "Irish Wood-Kearne;" they were drawn to ridicule.‡ In these drawings, published in 1581, we find four varieties of The English soldiers are depicted with breastplates and head-pieces of iron. The Irish peasantry wear two different kinds of dress: in one we have, in the words of the author, "the coate of strange device which fancie first did breade,"—the jerkin with short skirts having "pleates set thicke abot" the waist, and open-work sleeves after the Spanish fashion. Beneath the jacket depend the plaits of what appears to be the shirt, hanging like a kilt, "with pleates on pleates as thick as pleates may lye, whose sleves hang trailing doune almost unto the shoe." Other figures of the "meer Irish karne"

<sup>\*</sup> A precisely similar cap covers a figure in the "Norman dress of the twelfth century, from Harl. MS., 1526 or 1527." See Fosbrook's Encyclopedia of Antiquities, vol. ii., p. 885.

<sup>†</sup> This seal has been engraved in Malton's Views of Dublin, and there is also a rude representation of it in the Dublin Penny Journal, vol. ii., p. 4.

<sup>‡</sup> See the Somers Collection of Tracts edited by Sir Walter Scott in 1809, vol. i.

given by Derricke, are only clad in the cloak or mantle, and some are armed with galloglass axes. The Irish chieftains are all in long loose cloaks, deeply fringed round the neck, and down the breast, wear chequered vests, and have tall, conical barread caps, also cross-barred, and covered with plumes of cocks' feathers. The Irish cavalry are clad in shirts of ringmail, and are armed with long spears, broad-pointed falchion-shaped swords, and small round shields.

Of about the same period is the unique print said to be "drawn after the qvicke" now in the Douce collection of the Bodleian Library, for which painting a number of Irish chieftains were, it would seem, good enough to stand in melodramatic attitudes, with drawn swords and uplifted poniards, in the act of stabbing each other, to be sketched by the artist! Although the legs and feet are bare, their jackets are beautifully ornamented, and they are enveloped in long flowing robes and voluminous shirts. Their swords, however, are Grecian in the blade, and Roman in the handle. If such were used in the time of Elizabeth, no vestige of them has come down to the present day, and it is not likely that the Irish bronze, leaf-shaped sword, which some of these weapons resemble, was in use so late as three centuries ago.

As stated at page 304, most of our sculptured sepulchral monuments of note, of a later date than the thirteenth century, are those of Anglo-Irish. Still, there are some others which illustrate native costume, and, of these, one of the most remarkable is the effigy of O'Cahan, styled "Cooe-na-ngall," in the old church of Dungiven, county of Derry, dressed in a tunic or surcoat, which covers his armour, and wearing a high barread-shaped steel cap or helmet. This chieftain died in 1385.\*

<sup>\*</sup> A drawing of the tomb of Cooe-na-ngall was engraved for the intended Ordnance Memoir of the county of Derry, for a copy of which the author is indebted to General Larcom, R. E. The monument is also figured in the Dublin Penny Journal, vol. i., p. 405. Neither of these, however, exhibits the costume of the chieftain so well as an original drawing kindly lent the author by Mr. G. V. Du Noyer.

Of the same class of tomb is that of Donough O'Brien, King of Thomond, in the Abbey of Corcomroe, in the county of Clare. He was killed in 1267, and is represented in a loose chequered mantle, which reached below the knees. The tombs of the O'Conors, in the Abbeys of Sligo and Roscommon, and the monuments at Kilcullen, county of Kildare, also afford specimens of Irish costume. But as most of the effigies on Irish tombs of the fifteenth and sixteenth centuries are those of mailed soldiers wearing the armour common to their rank, and are not peculiarly Irish, they do not serve to illustrate this part of the Catalogue.

Of the same class of monuments as the foregoing is that of Richard de Burgo, "The Red Earl of Ulster," in the Abbey of Athassel, county of Tipperary, who died in 1326. Of this example of the civil costume of the nobility of Ireland during the early part of the fourteenth century, Mr. Du Noyer says: "The effigy represents the Earl without any cap or covering on the head; the hair is divided on the forehead, and falls over the ears in short curls, whilst on the upper lip are seen moustaches. The dress consists of a loose robe girded around the waist, and falling to the ankles in straight folds. The shoulders are covered by a small cape or tippet, which is fastened to the breast by a circular brooch. This cape is apparently attached to a mantle which falls over the left shoulder."† This was probably his official, and not his domestic dress.

Without a knowledge of our early costume, such as that sketched in the foregoing section, we could not well understand the uses and mode of wearing many of those ornaments and weapons described in the following pages.

The dress of the galloglass, or Irish foot-soldier, of the

<sup>\*</sup> See the Dublin Penny Journal, vol. ii., p. 841, and also Mr. Samuel Ferguson's paper on "Clonmacnoise, Clare, and Aran," Part ii., in the Dublin University Magazine for April, 1853, vol. xli.

<sup>†</sup> See Archæological Journal, vol. ii., p. 124.

fifteenth and sixteenth centuries, will be considered in the description of the Iron Collection.

We fortunately possess one full suit and several fragments of woollen clothing in the Academy's Collection. Figure 204, drawn the natural size, from a portion of thick, coarse, but soft woollen cloth, of a mottled brown colour. No. 7, in Rail-case H, in the southern gallery, presents us with an example of one of the most ancient specimens of native weaving which has come down to modern times. It is woven with a twill, and, when carefully examined in a good light,

Fig. 204,

the warp is found to be composed of

Fig. 205.

three plies twisted together, while the west consists of the untwisted woollen staple. This remarkable peculiarity of the twill or diaper resembles so exactly that figured in the cloak of the "Wild Irishman," engraved in Speed's map of 1610, that a facsimile thereof is placed in juxtaposition withit (Fig. 205), which likewise shows the glibb-fashion of wearing the hair, and also the kind of leggings or long boots used by the peasantry at that time.\* The piece of cloth figured above, and which appears

""The men were linen shirts, exceedingly large, stained with saffron, the sleeves wide, and hanging to their knees, straight and short trusses, pleted thicke in the skirts, their breeches close to the thighs; a short skeine hanging point downe before, and a mantle most times cast over their heads. The women were their haire plated in curious manner, hanging down their backs and shoulders, from under foulden wreather of fine linnen, rolled about their heads, rather loading the wearer than delighting the

to have been part of a cloak or coarse rug mantle, was discovered in 1848, in Carne bog, parish of Coolbanagher, Queen's County, and was—Presented by the Rev. Sir Erasmus Borrowes, Bart.

Although Spenser denounced the mode of wearing the hair in rather disparaging terms, and Speed represented it as above in Fig. 205, their exaggerations may be corrected by reference to the accompanying figure, drawn by a native artist in 1400. It is an accurate representation of the unco-



vered head and yellow flowing locks of the second archer in the Knockmoy fresco, already described, and accords with the description of O'Neill's galloglasses, who accompanied their chief to the court of Elizabeth.

Fig. 206.

In the year 1783 the Countess of Moira gave a description of a female dress, of coarse woollen material, found in a bog in the county of Down; and Mr. R. Lovel Edgeworth also recorded the discovery of a woollen coat fifteen feet below the surface of a turf-bog in the county of Longford, along with some iron arrow-heads (see Archæologia, vol. vii., pp. 90, 111), but no vestiges of either are now known to exist.

In 1824, a male body, completely clad in woollen garments of antique fashion, was found in a bog, six feet beneath the surface, in the parish of Killery, county of Sligo. In 1843 the dress of a female, also in the costume of some centuries back, was dug out of a bog in the county of Tipperary, and in 1847 a woollen cap was discovered in the county of Kerry. From these articles, all of which are in an astonishingly

beholder; for, as the one was most seemely, so the other was unsightly; their necks were hung with chaines and carkaneths, their arms wreathed with many bracelets, and over their side, garments of shagge rug mantles, purfied with a deep fringe of divers colours; both sexes accounting idleness their only liberty, and ease their greatest riches." See "The Theatre of the Empire of Great Britain, presenting an exact Geography of the Kingdom of England, Scotland, Ireland, and the Isles adjoining. By John Speed. London, 1611." The Map bears this inscription, "Performed by John Speede, and are to be sold in Pope's-head-alley, by John Seedbury and George Humble, and privileged A. D. 1610."

perfect state of preservation, and placed in the first compartment of the southern gallery of the Museum, we can form a very good idea of our ancient dress and manufactures of about the fifteenth and sixteenth centuries. No weapon was discovered near the body found in the county of Sligo, but a long staff lay under it, and attached to the hand by a leather thong was said to have been a small bag of untanned leather, containing a ball

o a small silver coin, which was head-dress, which soon fell to en a conical cap of sheep-skin. ead.\* So perfect was the body ret discovered, that a magistrate ed upon to hold an inquest on it. accompanying figure, drawn photograph of a person clad in this antique suit (except the shoes, which are too small for an adult of even medium size) we are enabled to present the reader with a fair representation of the costume of the native Irish of about the fifteenth century. The cloak or mantle, composed of brown soft cloth, closely woven with a twill (but not so fine as that in the coat), is straight on the upper edge, which is nine feet long, but cut into nearly a segment of a circle on the

Fig. 207.

<sup>• &</sup>quot;But though the Irish," says Lynch, "wore their hair flowing down their shoulders, the head was not uncovered. They were a cap, precisely the same head-dress as that of the Gauls, namely, an oblong cap, of somewhat conical form, which in Irish is called Barred, probably from the Latin word, Birstum, though its derivation could also be Irish, from the Irish Barr, a cone, and Eda, a dress, which, in combination, signify a conical covering or dress."—Cambrensis Eversus, cap. xiii., pp. 220.

lower. In the centre, where it is almost four feet across, it consists of two breadths, and a small lower fragment; the upper breadth is fifteen, and the lower twenty inches wide. It is a particularly graceful garment, and is in a wonderfully good state of preservation.

In texture, the coat consists of a coarse brown woollen cloth or flannel, with a diagonal twill, or diaper. In make it is a sort of frock or tunic, and has been much worn in the sleeves. The back is formed out of one piece, extending into the skirt, which latter is two feet long, and made very full all round, by a number of gussets, like the slashed doublets of Spanish fashion. It measures 8 feet in circumference at the bottom. broad at the top, are also inserted between the back and breast, below the armpits, and meet the gores of the skirt gussets at the waist. It is single-breasted, and has fourteen circular buttons ingeniously formed out of the same material as the coat itself, and worked with woollen thread. The breadth of the back is 18 inches, which was probably the width of the cloth. The collar is narrow, as in some of the most fashionable frock-coats of the present day. The sleeve consists of two portions joined at an angle across the elbow, below which it is open like that of the modern Greek or Albanian jacket, and has twelve small buttons extending along the outer flap. Where the sleeve joins the back, a full gusset is inserted, and the cuff consists of a slight turn-in, an inch and a half wide. The inside and lower portion of each sleeve has been much worn, and is patched with a coarse felt-like material of black and orange plaid, similar to that in the trowsers found on the same body. All the seams of this garment are sewn with a woollen thread of three plies.

The trowsers or trews are of a coarser material than the coat, and consists of two distinct parts, of different colours and textures. The upper is a bag of thick, coarse, yellowish-brown cloth, 19 inches deep, doubled below, and passing for some way down on the thighs. It is sewn up at the sides, and made

full behind. The legs are composed of a brown and orange yellow (or saffron colour) plaid, in equal squares of about an inch wide, and woven straight across; but each leg-piece has been cut bias, so as to bring the diagonal of the plaid along the length of the limb, and it is inserted into a slit in the front of the bag, extending inwards and upwards from the outer angle. The legs are as narrow as those of a pair of modern pantaloons, and must have fitted the limbs tightly; they are sewn up behind, with the seam outside, while in the bag portion the seams are inside. Below, the legs are scolloped or cut out both over the instep and the heel, the extremities coming down to points at the sides. The angle in front is strengthened by an ingenious piece of needlework like that used in working button-holes. It is said that these ends were attached behind to the uppers of the shoes, Nos. 16 and 17, described at page 291. All the sewing in this garment was also effected with woollen thread, but of only two plies. These close-fitting trowsers are evidently the ancient Celtic braccæ or chequered many-coloured lower garment, the triubhais or truis, now drawn from nature, and explaining by the way they were attached to the sacculated portion above, and the shoes below, many hitherto unaccountable expressions in Giraldus, especially when he says, "The Irish wear breeches ending in shoes, or shoes ending in breeches." Archdeacon Lynch, in his Cambrensis Eversus, writing in 1662, says on this subject, "The breeches used by the Irish was a long garment, not cut at the knees, but comprising in itself the sandals, the stocking, and the drawers, and drawn by one pull over the feet and thighs. [They] cover the groin, but not sufficiently, if the long skirts of the tunic were not wrapped over them." —(Vol. 11., chap. iii., p. 209, Rev. M. Kelly's Translation for the Celtic Society.)

All the foregoing articles, numbered 1, 2, and 3, in the Southern Gallery, together with the shoes found upon the body, were—Presented to the Academy by His Grace the Duke of

Northumberland, who purchased them with the collection of the late R. C. Walker, Esq., Q. C.

A woollen cap of a knitted or woven texture, circular in shape, like the Scotch bonnet, and of a lightish-brown or tan colour, was found ten spit deep under the surface, in 1847, at the butt of a large tree in a bog near Ballybunnion, county of Kerry, between Knockanforais mountain and the sea. It is marked No. 4 in the same case as the other woollen garments, in the southern gallery, and was presented by William Smith O'Brien, Esq. When it was found, it is said to have had a gold band round it.

On the chimney-piece of the old castle of Dunkerron, county of Cork, near Kenmare, there is a sculpture of the sixteenth century, representing, it is supposed, O'Sullivan More, whose dress is a "close-fitting tunic, belted round the waist, and extending to half-way above the knees; his cap very closely resembled a Glenagarry bonnet in the twisted band surrounding the lower part over the forehead; what appears to be a small feather hangs gracefully drooping from the back of the cap."\*

The foregoing description of early Irish costume mostly refers to male dresses. We have no pictorial representations of women's costume earlier than the fourteenth or fifteenth centuries, from which period about to the middle of the last century a few sculptured figures on tombs afford examples of the Anglo-Irish female dress of the upper classes. Without entering minutely into the subject, the costume on these effigies may be divided into the loose flowing robe, and the stiff-plaited skirt and tight-fitting boddice. Of the former class, examples may be seen in the tombs of females at Cashel, figured by Mr. Du Noyer, in vol. ii., p. 127, of the Archæological Journal, and which present the remarkable peculiarity of being cross-legged. Of the latter we have examples

<sup>\*</sup> See Mr. Du Noyer's Paper in the Kilkenny Archæological Journal for March, 1859, p. 291.

in the St. Lawrence tomb, in the old Abbey of Howth; the tomb of the Butlers at Clonmel; in the Fitz Eustace monument at Kilcullen; and in many other localities throughout the country. The greatest variety in female costume consisted in the head-dress, which from time to time partook, both in dimensions and design, of the ruling fashions of the day.

Of the second form of dress, we possess a specimen of coarse woollen cloth, in a wonderful state of preservation see No. 5, in the first compartment of the Southern Gallery. It consists of a boddice with a long waist, open in front, and attached to a full plaited skirt, not unlike that figured by Lady Moira, and already referred to at page 326. The skirt, which resembles the Albanian fustanell, consists of several narrow breadths, gathered into small plaits at top, and spreads into a broad quilling at the bottom, each plait being stitched on the inside to preserve the form, and continue the fulness from the waist throughout. The bottom of this skirt at present measures 22½ feet, and consists of ninety-two plaits, each about 3 inches wide at the bottom, and 2 at the top; the quilling being so arranged as to bring the joining of each pair of breadths into a plait. In texture, the cloth of this curious piece of costume is somewhat coarser, thicker, and harder, and its colour a much darker brown than any of the other woollen garments in the collection. It was found, in the spring of 1843, in a bog near Shinrone, county of Tipperary, and was procured by Dr. Aquilla Smith, for the late Mr. R. C. Walker, from whose collection, when purchased by the Duke of Northumberland, it was presented to the Aca-

Bone Cloak or Mantle Pins (Dealga).—The Academy possesses one of the largest collection of cloak and mantle pins of animal material which has yet been made in any part of Europe. It is arranged upon Trays A and B, in the Endcase of the Eastern Gallery; on Trays C and D in the South-

ern Gallery; in Rail-case E; and on the "Find" Trays A and B in the lower compartment of the Museum. It now amounts to no less than 280 specimens.\*

Taking bone and horn as preceding metal in the ordinary process of art consequent upon human culture and civilization, we may suppose that some of the original designs of breast-pins were fashioned in this material, although few of the specimens in the Museum can be of as great antiquity as those of metal. Many of these bone pins would also appear to have been used as piercers, and some as needles and bodkins, but the great majority of them were evidently employed as fasteners.

As stated at page 312, a large iron pin or skewer, having a decorated or looped head, is used by the lower classes to fasten their cloaks, so that this kind of fibula may be said to have come down to the present time.

These bone pins and bodkins vary in length from two to nine inches, and present divers patterns and forms of ornamentation, but were all evidently used as fasteners for the cloak or mantle, or for holding up the hair. Some of them are formed out of the bones of fowl; others, of the fibulæ, or small leg-bones of quadrupeds; many are perfectly plain; and others decorated at the head, where the natural enlargement of the bone afforded surface for artistic display. About one-third of these varieties have been perforated at the top, and were possibly attached to the person by a string, or had a ring or some form of ornament passed through the aperture. Some of these, as Nos. 41, 42, 108, and 114, on Tray A, have enlargements about half-way down the shaft, as if for retaining them in position, after they had been passed through a loop or eyelethole in the soft woollen textures of the mantle or coarse outer

<sup>\*</sup> Dealg is also a thorn, as well as a skewer pin or bodkin. Some of these pins and other bone articles were procured by the Academy after the original arrangement and registration had been completed, and therefore do not follow in successive order on the different Trays.

garments. Crannoges and street-cuttings have been the fruitful mines from which these small bone articles have been exca-

vated. The simplest form of pin, as shown in the accompanying cut, figured from No. 97, on Tray A, is drawn the natural size. The head is very rude, but perforated, and ornamented by diagonal lines. In the six following illustrations we have typical examples of the most curious bone pins in the Collection. Fig. 209, No. 19, on Tray A, is a large, dark-coloured bone pin, 9 inches long, and 11 thick at the head, found in the River Shannon, at Grosses Island, county of Leitrim, and—Presented by the Shannon Commissioners. What its precise use may have been, has not yet been fully determined. Fig. 210, No. 110, on Tray A, is the most highly decorated pin in the Collection; it is flat, 71 inches in length, and figured all over the shank as well as the head, where it is perforated with five holes; it affords a good example of the style of circular domino ornament common to nearly all the bone articles in the

Collection. Fig. 211, No. 114, on the same Tray, is No. 97. 82 inches in length, and resembles, in the lower portion, a long

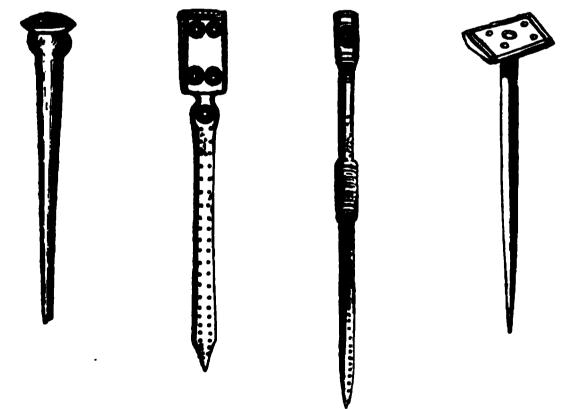


Fig. 209. No. 19. Fig. 210. No. 110. Fig. 211. No. 114. Fig. 212. No. 304.

narrow knife-blade; it is highly decorated all over the blade and top. Figs. 212 and 213, from Nos. 304 and 305, on Tray C,

are not only very curious specimens in themselves, but, having attached heads, afford a clue to the uses of some of the small decorated plates upon Tray B, which came from the Ballinderry crannoge, the same locality where these were found. The first is 3½ inches long, and has an oblong bone head,



Fig. 213. No. 805.

Fig. 214. No. 18.

Fig. 215. No. 348.

ornamented with four indentations, as shown in the cut. The shank is provided with a shoulder, upon which the top plate rests. No. 305, in the accompanying cut (Fig. 213), is 4½ inches long, has a circular head one inch in diameter, and is fastened to the shank in the same manner as the foregoing. Several pins are curved in the blade or shank (see Nos. 56 and 102, on Tray A; 62, 63, 69, 70, and 72, on Tray B, and 311, on Tray C). One of the most remarkable specimens of this variety is No. 13, in Rail-case E, here figured the natural size (Fig. 214). The head is exceedingly well carved into the representation of a grotesque sitting figure, like some of those architectural embellishments seen in mediæval buildings. It was found in a field near Newbridge,

county of Kildare, and was—Presented by Frederick Groome, Esq. (See Proceedings, vol. vii., p. 121.) Fig. 215, No. 348, on Tray C, is square in the shank, and has a looped head, through which is passed a ring, also of bone. This pin, which is  $5\frac{1}{2}$  inches long, is highly decorated all over, and so sharp both in the carvings and at the angles, as to lead to the belief that it had never been in use;—it was found in the Ballinderry crannoge, county of Westmeath, together with Nos. 349 to 353, and 356 and 357, also arranged on Tray C. The similarity of design and execution, as well as the apparent freshness of these articles, lends probability to the supposition that a manufacture of them existed in that locality. No other bone pins of this class have heretofore been recorded.

Varied as are the forms of these mantle and hair-pins, taken as a portion of the great collection of articles of all materials in the Museum, denominated brooches, they do not present more variety, nor a greater degree of inaptitude, than objects manufactured for a like purpose in the present day. The following is a catalogue of all the bone pins in the Collection, except those upon the "Find" Trays, already referred to at page 332.

Tray A, second row.—No. 41 is a bone pin, 9 inches long, much ornamented, with a flat head, and a protuberance on the centre of the shank. No. 42, ditto, is  $7\frac{1}{3}$  inches long, with a round, ornamented head, and a square projection, perforated in the centre of the shank. Nos. 43 to 50 are bone pins, averaging  $5\frac{1}{3}$  inches long. No. 51 is a rude bone pin, apparently one of the long bones of a fowl. It was found in Clonfree crannoge, and was—Presented by the Rev. Peter Brown. Nos. 52 to 59 are eight bone pins, averaging 5 inches in length. No. 56 is curved on the shank like No. 102, and Nos. 62, 69, 70, and 72, on Tray B. Nos. 57 and 58 are enlarged at the points. No. 60 is  $3\frac{3}{4}$  inches long, and was found at Magherally, county of Donegal. Nos. 61 to 73 decrease gradually in length from  $3\frac{3}{4}$  to  $2\frac{3}{4}$  inches. No. 74 was found with No. 83, in

Clonfinlough crannoge, and—Presented by the Board of Works. Nos. 75 to 82 are bone pins of the smallest size on the Tray. (All the other specimens, from 79 to 115, are perforated at the head.) No. 79 is a bone needle or bodkin, about 4 inches long. No. 80, a perforated bone pin, found with No. 96 in Ardakillen crannoge, and— Presented by the Board of Works. Nos. 81, 82, and 83 are small perforated pins. No. 84 is a small bone needle. No. 85 is a circularheaded pin,  $3\frac{1}{4}$  inches long. No. 88 is very broad at top, and  $3\frac{1}{4}$ inches in length. Nos. 87 to 97 are bone pins, perforated at top. No. 98, which is 4 inches long, has a copper ring passed through the aperture in the head. Of the remaining seventeen pins, from 99 to 115, which vary from 4 to 9 inches in length, No. 102 is remarkable for its curvature and square head. No. 108 is also squareheaded, and has a rise in the centre of the shank. No. 110 is shown in the woodcut, Fig. 210, p. 333. No. 113 swells at the point like 57. No. 114 has the shank formed like a knife-blade, with a rise near the top, (see Fig. 211, p. 333). The majority of these pins were found in the Strokestown and Ballinderry crannoges, already described at page 226, &c., and were purchased by the Academy from persons residing in their neighbourhoods.

For the catalogue of other articles on Tray A, see pages 258, 262, and 273, &c. &c.

Tray B, Second and third rows.—On this Tray have been arranged two rows of pins, divided in the centre by a collection of miscellaneous articles. They amount to 153, and are numbered from 33 to 185. In length, they vary from little more than 1 to 5 inches, and are, for the most part, undecorated, and generally inferior in workmanship to those on Tray A. A few are curved, as stated at p. 334, and twenty-eight are perforated. No. 68 is worthy of observation, from its having a knotted fillet round the head. The majority of these pins came from the crannoges in the neighbourhood of Strokestown. Nos. 33 and 34, from that locality, were— Presented by Dr. R. R. Madden, and No. 37 by A. Lawder, Esy. (See Proceedings, vol. v., p. 219.) Nos. 42, 57, 61, 62, 79, 97, 164, and 139, were found in the Ardkillen crannoge (see p. 226). Nos. 66 to 72, and 75, 78, 80, 81, 82, 83, and 87, were found in Christchurch-place, Dublin city. All the other pins on this Tray were

obtained from some of the crannoges mentioned above, and described at page 225.

For the catalogue of the other articles on Tray B, see pages 264 and 274, &c.

Tray C, Miscellaneous Bone Articles, Pins, Knives, and Ornamented Plates.—The top row consists of fifteen pins, numbered from 304 to 318, and varying in length from the first, which is a little more than 3 inches, to No. 311, which is above 9 inches long. Nos. 304 and 305 are small bone pins, having decorated and attached heads (see Figs. 212, on p. 333, and 213, at p. 334). Nos. 306 to 309 have oblong heads, perforated and ornamented. No. 310 is 81/4 inches long, and has a round, perforated head. No. 311 is  $9\frac{1}{8}$  inches in length, and ornamented with small indentations all over the shank as well as the head. No. 312 has a plain, square, perforated head. No. 313, ditto, the shank ornamented. No. 314 is a plain bone pin, 6\frac{1}{2} inches long, with a perforated head. No. 315, ditto, with oblong, ornamented head. No. 316 is a very rude bone pin, 4½ inches long, with a perforated head. No. 317, ditto. No. 318, ditto, and only 3\frac{3}{4} inches long. All these bone pins, together with the other articles on this Tray, to No. 345, were found in the Ballinderry crannoges, described at p. 226, and were purchased by the Academy from a collector in the summer of 1858. No. 319 is a bone knife, 7½ inches long, decorated upon the blade and handle.

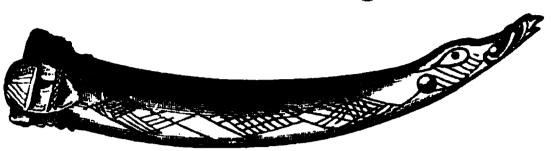
Here the bone plates, numbered 320 to 345, described at page 342, intervene, and, with No. 319, occupy the second, third, and fourth lines on this Tray. Nos. 346 and 347 are two thin, bone pins, each about 8 inches long, formed out of mammal fibulæ, in which the natural enlargements of the bones at one extremity have been formed into oval heads. Their shanks have been scraped down to very thin, fine spikes. They are of the natural colour of the bone. No. 348, and the five following pins, procured, through a collector, from the Ballinderry crannoge, county of Westmeath, in March, 1860, present an entirely new character of bone pin, and no other specimens, resembling them either in form or ornamentation, have come into the Museum. They are all stained of a dark colour, apparently by artificial means, and four of them have bone rings, thinned at one point for passing through a slit in the

looped head, thus showing that this loop is not a turn over of the bone when in a softened state, or owing to any chemical process. No. 348, figured on page 334, represents all the peculiarities of these pins so faithfully as not to require any further description. 349, a dark-coloured, round pin,  $5\frac{1}{6}$  inches long, decorated in the shank, and having a square-edged ring-head like the foregoing. No. 350, ditto, 4 inches long, with a four-sided, ornamented shank, and a ring passed through a loop in the head. No. 351, ditto, 5 inches long, has a ring passed through the head. No. 352, a darkcoloured, circular, bone pin, 4½ inches long, in which the hole for the head appears to have been cut through, without a slit for passing in the ring. No. 353, a dark-coloured, bone pin, 5 inches in length, decorated, square in the shank, and having a double perforation at the top, like some of the bronze pins on Tray XX. 354, a plain, bone pin, perforated, and 2½ inches long. No. 358 and 359, a dark-brown-coloured bone knife and fork, referred to at page 267; the former is  $6\frac{1}{5}$ , and the latter  $7\frac{1}{5}$  inches long. They are in the most perfect state of preservation, and do not appear to have ever been used; they were found, along with the bone pins in the same row, in the Ballinderry crannoge, and, from the sharpness of the angles and the extreme similarity in the ornamentation, it would seem that there was a manufactory of such articles there. Their handles are square, and decorated with the domino-ornament. The fork has five prongs, and measures  $l_{\frac{1}{4}}$  inches across the blade. The handle of the knife bears some resemblance to the large, hollow bone, No. 36 on Tray A, figured and described at page 343. The blades of both these articles are formed of separate pieces, fastened by tangs into the handles, and originally secured with cross-rivets. No. 360, a bone bead,  $\frac{1}{2}$  an inch wide. No. 361, ditto,  $\frac{7}{8}$ ths in diameter; both were found in the River Glyde, below Castle Bellingham, county of Louth, and were—Presented by the Board of Works. (See Proceedings, vol. vii., p. 180.)

Pendants of the teeth of animals, decorated bones, shells, coral, and glittering objects of all kinds, have been used by the human race, either singly, or attached to necklaces, in all countries from the earliest period. A few objects, apparently

belonging to this variety of ornament, may be seen on the centre of Tray B, numbered from 194 to 198, both inclusive. That represented the full size in the accompanying illustration is of ivory, perforated at the small end, carved and pleasingly decorated on the sides, like some of our gold ornaments.

The following is a list of the other articles of this



description on Tray B.

Fig. 216. No. 197.

Nos. 194 and 195 are curved walrus tooth pendants, each about  $4\frac{1}{2}$  inches long, and perforated at top; they were found in Ballygoran Bog, parish of Laraghbryan, county of Kildare. No. 196 is a perforated bear's tusk. No. 197, the ivory pendant, 3 inches long, figured above (216). No. 198, a piece of highly polished bone, 4 inches long, and  $\frac{1}{4}$  inch thick, like a slender knife handle, but solid. It was found in one of the chambers of the great tumulus at Dowth, on the Boyne, county of Meath, opened in 1847.

Beads and rings of bone and horn have been found in several of our crannoges, but have not been preserved by the collectors as well as the pins and combs. At the bottom of Tray o may be seen two small turned bone beads, Nos. 360 and 361 (see page 338). Such objects are generally barrelshaped, and either formed parts of necklaces, or "beads" used for religious purposes.

## SPECIES VI.—AMUSEMENTS.

Chess, Fithcheall, was a game well known to the ancient Irish, and is frequently alluded to in our histories; but there are not as yet in the Museum of the Academy any specimens of ancient chess-men sufficiently characterized by their carvings, to determine their precise use, although the bone junks forming the last row on Tray B, from No. 287 to 303, may have been used as pawns in that game. These seventeen

pieces of bone, which from their smoothness appear to have been much handled, average about an inch in height. In Dr. O'Donovan's introduction to the "Book of Rights" may be found many curious references to the game of chess amongst the Irish, and also an engraving of an antique chess-king from the collection of Dr. Petrie. Chess furniture, such as the checkered board, and also the pieces, are frequently referred to in ancient Irish works; and we read that when Muirchertach of the Leather Cloaks carried off the body of Cerbhall, King of Leinster, he caused a chess-board to be formed out of his bones.†

The flat decorated disks, in the penultimate row of Tray B, from No. 264 to 273, both inclusive, were either used as draughtsmen, or employed as marking counters.

## SPECIES VII.-MUSIC.

Although the hollow cuticular horns of oxen must have been in common use as musical instruments among the early Irish,‡ the perishable nature of the material would preclude the possibility of those of any great antiquity coming down to the present day; so that the only articles of this species in the Museum of unquestionable use, are the harp-pins found in the Strokestown crannoge, and one of which is here figured the natural

Fig. 217. No. 2.

size (see No. 2, on "Find" Tray C,

on the ground-floor).

<sup>\*</sup> Chess-men were also enumerated amongst the articles presented by sovereigns to their chieftains in this most interesting historic document,—a work, beyond all others of its class, descriptive of the social condition of Ireland—its state policy—the manners and customs of its inhabitants—their dress and manufactures,—as well as the luxury and artistic tastes of the times to which it refers. See also page 265.

<sup>†</sup> Annals of Clonmacnoise. See also Miscellany of the Celtic Society, page 161.

<sup>‡</sup> O'Sullivan Mór is represented on the sculptured stone at Dunkerron Castle, Co. Cork, blowing a horn of this description. (See "Kilkenny Archæological Society's Journal," referred to at p. 380.)

The perforated metacarpal bone, No. 39, on Tray A, figured and described among the miscellaneous articles at page 344, may have been part of a musical instrument; but its precise use is as yet undetermined.

# species VIII.—Money, and the means of Barter; and species ix.— MEDICINE—

HAVE no representative articles among the antiquities composed of animal materials; and those objects of that class devoted to Religious purposes (Species x.), will be considered under the head of Ecclesiastical remains.

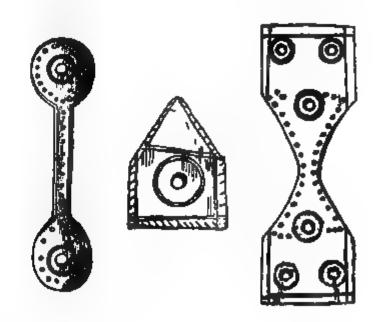
#### SPECIES XI. -- SEPULTURE.

WITH most of the cinerary Urns, where any care has been taken in their removal, or with which we have received a faithful account, fragments of burned bones have been discovered, as already stated in the description of these articles at page 173. Where sufficient anatomical evidence remains, we find that the great bulk of these incinerated bones are human; but in some instances, we have also been able to detect those of both mammals and birds. (See Proceedings, vol. iii., page 262.) In some cases, the bones, both of men and animals, in a partially torrified state, together with fragments of charcoal, have been found outside the urn in the stone chamber, and occasionally in the ground adjoining; and were evidently the remains of sacrificial ceremonial. A quantity of these incinerated bones, forwarded from time to time to the Academy, and chiefly along with urns, are placed in the wooden model of a tomb in the bottom of the end glass-case of the Eastern gallery (referred to at pages 85 and 268).

### SPECIES XII.—MISCELLANEOUS.

Among the miscellaneous articles in the collection of manufactured animal remains are eighty thin plates of bone of a great

variety of shapes, and possibly some diversity of purpose. They have been arranged on Tray 2, from Nos. 199 to 252 inclusive, and on Tray 3, from Nos. 320 to 345. In length they vary from one to five and a half inches; some are triangular, others nearly square, and several very irregular; but the majority are oblong, and all more or less decorated on the outer smooth, convex surface with a number of circular indentations and dotted lines. Each object has also several perforations; and the accompanying illustrations (drawn two-thirds the natural size) show the great variety which exists in the form of these plates. While in some respects they resemble in size, shape, and ornamentation the small stone articles de-



scribed at p. 125, and which would appear to have been used, either as toys, amulets, or in some description of game, a more probable use may be assigned to these bone plates—that of the decoration of small boxes or caskets. The Abbè Cochet has described similar articles which were found attached to small boxes in excavations recently made in Normandy.\*

Sepultures Gauloises, Romaines, Franques, et Normandes. Paris. 1867.
 P. 244.

One of the rudest articles of this description in the Museum is the spatula-shaped bone, here figured one-half the natural size, and perforated with four holes, as shown in the accompanying illustration,

Figure 223. We do not possess any precise information as to the circumstances under which these bone objects were obtained, beyond the fact that the majority of them were procured from the debris of the Ballinderry and Strokestown crannoges.

Amongst the miscellaneous articles upon
Tray B is a curious ovoid piece of hard, polished bone, No. 226, shown in the accompanying woodcut (Fig. 224). It is 2½ inches in the longest diameter; is perforated with Fig. 228. No. 228. ten holes of different sizes, and may have been used for passing threads or cords through, either in weaving, netting, or

lace working. It was procured along with the bone plates enumerated above. Nos. 229, 230, and 231, on Tray B, are the epiphyses, or centres of ossification on the articulating surfaces of the long

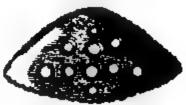


Fig. 224. No. 226,

bones of animals, and which are unconsolidated with the shaft during very early life. They are perforated, and may have been used either for ornamental or utile purposes, such as those suggested for No. 226. Nos. 232 to 252 are small decorated bone plates of a dark-brown colour, apparently identical in purpose with those already figured on page 342.

Although the perforated bone, No. 36 on Tray A, already mentioned at pages 263 and 341, was, in all probability, used as a musical instrument, still, as we want authority for this assertion, it is safest to arrange and describe it among the articles of a miscellaneous or as yet undetermined character. The accompanying figure of this bone is drawn one-third the natural size, the original being 8 inches long. It is apparently

the shank of a deer, is hollowed artificially throughout, and perforated with nine holes, which pass from one side to the other, and are decorated with circular indentations; the upper



Fig. 225. No. 39.

hole, which is larger than any of the others, is surrounded with a double ring. This bone is likewise decorated with dots and lines. If it was the top member of a lute, or small, rude harp, these holes might have been used for holding the pins to which the strings were fastened.

In Rail-case may be seen three decorated bones, the precise use or object of which being as yet conjectural, they have been placed in this species. Few objects in the Academy can compare with them in interest, and, so far as published records are available, they are unique. No. 28, Fig. 226, a leg bone, probably of a deer, 81 inches long, covered with carving, and highly polished, was procured from one of the Strokestown crannoges. No. 29, Fig. 227, is also a leg bone, but stained of a dark-brown colour, apparently from lying in peat, and is in the natural state in all respects, with the exception of the carvings on its side. It was found in the Lagore crannoge, county of Meath, and was procured through Mr. Wake-Its polished surface shows how much it had been hanman. In addition to the well-cut illustrations represented dled. the natural size by Figures 236, 237, and 238, on page 346, there are various devices traced upon the under concave surface of this bone with a graver or other sharp tool-the original sketches or unfinished drawings of the artist at the time this article was lost. No. 28 has also carvings on the convex side, similar to the foregoing; but the designs are somewhat different, although not inferior in workmanship; the surface of the bone is not, however, in such a good state of preservation as in No. 29. No. 30, Fig. 228, is a fragment of the scapula of a sheep or deer, carved on the inferior surface; it is 7 inches long, and marked "G. 316" in the old manuscript registry of the Museum. The engravings upon it, although well drawn, are not so carefully executed as on either of the foregoing, and, as may be seen by Figures 239 to 244, on page 347, they are of a totally different character. They are shallower,—the

texture and thinness of the bone not per-

Fig. 296. No. 20. Fig. 227. No. 29.

Fig. 228. No. 80.

mitting of deeper cutting. In addition to the carvings shown by Fig. 228, there are several others upon the lower side of the crest of this bone. To those engaged in the study of Irish decorative art these articles are of very great interest. From the carvings on No. 29 may be printed very clear, sharp, and accurate impressions, in the same way that proofs are taken from a woodcut.

While the foregoing illustrations afford us good ideas of these bones themselves, and of the situation, relative position, and comparative size of the carvings, which are all deeply cut in with a graver, the following fac-similes present us with the details, as well as the differences in artistic style, in each variety of ornament. These illustrations are fac-similes of those embossed patterns on No. 28, Fig. 226. They are included





Fig. 229.

Fig. 220.

Fig. 231.

within straight lines, forming portions of squares or triangles.

A few of the engravings on the bone, marked No. 29 (Fig. 227) are somewhat of the same class of ornament, as shown in the four following cuts, which, with those already described, afford the modern artist good specimens of that peculiar



Tio 989



Fig. 288.



Fig. 284



Fig. 285

scroll-work and interlacement for which Ireland was distinguished in the middle ages. But others, shown below, are included within deeply indented curved lines, and represent



Fig. 236.



Fig. 287.



Fig. 238.

animals, and that special form of spiral ornamentation and twisted strap-work, believed to be of Celtic origin,—examples of which are to be found in the initial letters and emblazonry of some of our illuminated manuscripts, and of which the Books of Kells and Durrow, already referred to at page 298, as well as some of the Irish manuscripts on the Continent, afford many beautiful specimens.\*

<sup>\*</sup> See Dr. Ferdinand Keller's " Bilder und Schriftzuge in den irischen Manuscripten der Schweizerischen Bibliotheken," in Transactions of Antiquarian Society of Zurich, 1853.

Upon the blade bone (No. 30, Fig. 228) there are thirteen devices in a more or less finished state, but differing in character and style of engraving from any of the foregoing. The







Fig. 220,

Fig. 348.

Fig. 941.

Flg. 942.

nature of this bone would not permit of as deep cutting as that employed in the two others already described. Three of these, figured above, are triangular, and two of them show that form of knotted interlacement seen in such variety and abundance, not only in our manuscripts, but upon several of our sculptured crosses and metal shrines, or worked into the tracery of early Irish ecclesiastical architecture. The other



Fig. 268.



Fig. 344.

carvings on No. 30 chiefly represent animals, of which the two annexed cuts are highly characteristic.

The artists do not appear to have followed any order or plan in the arrangement of these carvings, but simply chose the hardest and smoothest portions of the bone, and the thickest also when it was necessary to cut in deeply.

Besides the foregoing bone articles, there is, in Rail-case III, the fragment of a scapula, No. 31, probably a portion of No. 30, and which is also rudely marked on the surface.

In considering the object or uses of these decorated bones,

we must fall back on conjecture, that earliest resource in many antiquarian investigations; and the most probable one is that they were intended merely as specimens of the designer's and engraver's art; although it is possible that these patterns may have been transferred to parchment by some process with which we are not now acquainted. Impressions in relief may also have been taken from them by some plastic or soft putty-like substance, although melted metal could not have been used for that purpose without injury to the bone.

Rail-case H at the commencement of the Southern Gallerycontains a number of articles of a miscellaneous character, which could not well be displayed on Trays. No. 1 is the mineralized horn described and figured at p. 260. No. 2, a powder flask formed out of a flattened cow's horn, and marked with the date 1691. No. 3, a small bone drinking horn, 23 inches long, from Dunshaughlin: see p. 265. No. 4, a small scabbard, 5 inches long, referred to as No. 1, at p. 279. No. 5, several specimens of deerskin clothing, described and figured at p. 277. No. 6, portions of tied or woven goat's-hair fringe: see p. 295, Fig. 188. No. 7, a fine, woollen, plaited band: see Fig. 189, p. 295. No. 8, two specimens of coarse, woollen cloth, described and figured at p. 295. No. 9, an ornamented bone comb (marked No. 159 in continuation of the numbering of such articles on Tray A) described and figured at p. 271. No. 10, a decorated bone comb, like the foregoing, from Ballinderry (No. 160). No. 11, fragment of a bone comb (No. 161). No. 12, fragment of a bone comb (No. 162). Besides the combs on Tray A, and these in this Rail-case, there are fragments of five others on "Find" Tray A, from Ballinderry, seven on "Find" Tray B, procured from Dunshaughlin, and twenty-two on "Find" Tray D, found in the Strokestown crannoges, now making the entire number of combs, either complete or fragmentary, in the Museum, at this date (June, 1860), to be eighty-two. No. 13, a small decorated bone pin, described and figured at p. 334. No. 14, a plain bone pin. No. 15, a small, circular, bone box, probably the end of a pepper-caster, 11 inch high, decorated with domino ornament, bottom inserted like that of a mether. No. 16, a thin, flat, decorated bone plate, like those described at p. 342. No. 17, a large,

decorated bone whorl, like those on Tray B. No. 18, ditto, thick. No. 19, ditto, much ornamented. No. 20, a small bone whorl. Nos. 21 and 22, two bone spoons, described and figured at p. 267. No. 23, a bone whorl. No. 24, ditto, turned white by chemical change. No. 25, a decorated bone ring, 1 inch across, and nearly half an inch wide. No. 26, a small bone junk. Nos. 15 to 20, and 23 to 26, were found in the debris of Ballinderry crannoge. No. 27, an oval horn box, shaped like the bottom of a powder horn,  $3\frac{3}{4}$  inches long, 2 high, and  $1\frac{1}{4}$ broad, ingeniously carved all over with a variety of devices, interlacements, and figures of birds and quadrupeds. Some of the tracings are very intricate, and well-executed, although the drawing of the animals is very rude. On one side is the date 1583. The bottom is of timber, fastened in with wooden pegs, some of which have been replaced by iron rivets. It was evidently furnished with a lid, the rivet-holes of which remain round the top edge, and the notches in the margin of the rim show how a portion of the lid might have been opened. No. 28, a decorated shank bone, Fig. 226. No. 29, ditto, Fig. 227. No. 30, a decorated scapula, Fig. 228, p. 345. No. 31 is the fragment of a scapula, also decorated. No. 32, a much-worn, woollen-sewn shoe, 9 inches long. No. 33, ditto, sewn with a thong, 9 inches long. The former was found at Knock-nacommon, county of Roscommon; the latter in the bog of the Great Down, four miles east of Mullingar, county of Westmeath, and both presented by Mr. Richard Murray. These increase the number of shoes in the Collection to thirty-six.

The total number of articles composed of animal materials now in the Museum (June, 1860), is six hundred.

## CLASS V.-METALLIC MATERIALS.

REVIEW having been made of the different articles composed of stone, earthen, vegetable, and animal mate-e amongst the primitive inhabitants of we now pass to that more advanced civilization when metal became known sh, and was used for weapons, tools, naments. The introduction of metal r history, yet no record exists of the

Its adoption, however, was neither sudden nor universal, for, so late as the ninth century, stone weapons were still used in Ireland, and stone implements were fabricated with metal, probably even with iron tools. (See p. 74.)

The transition from the first rude instruments of flint stone or bone to the rare and costly articles of metal, must have been very gradual, and possibly extended over many centuries. At first, perhaps, the use of metal was limited to the kings and chiefs, and may have served as an indication of rank.

Neither sacred nor classical writers afford any clue to the discoveries of the ancients in metallurgy, beyond the fact that Tubal-Cain was "an instructor of all those that work in brass and iron;" that the Greeks preserved the tradition in the person and name of Vulcan the smith; and that, when Homer wrote, gold, silver, and also copper and tin, with their compound, brass, were well known, and brought to a high degree of perfection in the arts. But such discoveries were pre-

historic in Greece, Asia Minor, and Egypt; and it is remarkable that, while vague traditions respecting the inventors of other arts and sciences float through ancient history, there is not the slightest reference, of even a mythological nature, respecting the discovery of metals, to be found throughout the writings of the ancients.

When and how the Irish people discovered metals and their uses, together with the art of smelting and casting, has not been determined by archæologists. Whether the knowledge spread from any particular country, by the distribution of mankind, and the intercourse of nations throughout the earth, or that the Irish made the discovery for themselves independently, are questions of great interest, but on which we possess very imperfect means of deciding.

To attribute to a people so inquiring, energetic, and ingenious as the early Celtic inhabitants of Ireland, the discovery of some of our vast mineral resources, as well as the uses and properties of metals,—the mode of smelting, and afterwards the art of casting,—is allowable, when we possess no evidence to the contrary.

Traditional notions respecting the aboriginal inhabitants of Ireland are to be found in early Irish history, but chiefly in the Leabhar Gabhala, or Book of Invasions. Numerous extravagant reports are there given; but of the actual habits or arts of the primeval people of Ireland, we really know nothing, except what may be gleaned from their monuments, and those remains preserved in the Museum of our Academy, and other similar antiquarian collections.

The first wave of population most probably reached these shores from the nearest land of Britain or Scotland in the process of the general diffusion of mankind, after the British Isles had passed through those geological, vegetable, and zoological transitions which finally rendered them habitable to man. Whether that early race, starting from the cradle of mankind, and wandering along the shores of the Mediterranean,

passed round the coasts of Spain, Portugal, and Gaul, till they arrived at the nearest point from which the cliffs of Albion might be discerned; or, following the course of the great rivers, such as the Danube, Rhine, Elbe, Seine, and Oder, &c., that traversed the primeval forests of Europe, came by a more direct, though less easy path; or whether they reached these islands by a northern route, or crossed direct from Spain,—are mere conjectures.

It would, however, appear that various colonists, or conquerors, such as Parthalon and Milesius, at different times pursuing the destiny of their race, sought the "Far West," and finally rested in Erinn, the extreme point of the old world in that direction; but no historian has shown that even the earliest of those adventurers found the island uninhabited. The two earliest of these colonists were the Firbolgs and the Tuatha de Danann, to both of which a Grecian origin has been assigned by our bardic annalists. Shortly after the arrival of the latter, the two first memorable battles recorded in Irish history were fought,—those of the northern and southern Moytura, in the counties of Sligo and Mayo, the memorials on the fields of which, to this day, attest the truth of the statements made by the historians. In these battles the superior skill and weapons of the Tuatha de Danann prevailed, and drove the Firbolgs to the southern isles of Aran, where those stupendous barbaric monuments of unhewn stone, erected without mortar, tend to prove that these people had then no knowledge of lime or of metal tools, although they, probably, had some copper or bronze weapons. At one of these engagements it is said that in the rear of the Tuatha de Danann army the smith was at work renewing and sharpening the weapons of the combatants. It is also related by the antiquary, Duald Mac Firbis, in his history of that people, that they knew how to smelt metals; but further, we may say with Tighernagh, the most faithful of the annalists,—"Omnia monumenta Scotorum ante Kimbæth incerta erant." In an ancient

poem, quoted by Keating, it is said that the Tuatha de Danann brought with them to Ireland the Lia Fail, or Stone of Destiny (now supposed to be underneath the Coronation Chair in Westminster Abbey), the sword of Lughaidh Lamhfhada, a spear, and the cauldron called Coire-an-Daghdha; so that it may safely be inferred they had a knowledge of metals, and hence were styled necromancers. (See Haliday's Translation of Keating, p. 199.) There are also divers indications in the oldest annals of the application of metals to the arts, where we read of Credne, the artificer, who constructed the silver hand for Nuada Airgeat-Lamh, the hero of the battle of Moytura; of Goibhnen, the smith, over whose wife the great sepulchral monument at Drogheda was erected; of Diancecht, the Irish Æsculapius; and, in somewhat later times, of the Gobban Saer, the great primeval Christian builder, to whom is tradidionally attributed the erection of several of our ancient stone structures.

Unlike England, where the Roman, Saxon, Norse, and Norman invaders, each in succession, ruled for centuries, and left their remains in such abundance as nearly to obliterate all vestiges of its primeval inhabitants,—Ireland has remained, notwithstanding all her vicissitudes, in possession of her ancient language, and a greater amount of the vestiges of her early people, than any other nation in north-western Europe.

Whether gold, silver, copper, tin, lead, or iron, was first discovered by mankind in general, is questionable; but it is usually conceded that iron was the latest. Presuming that the Irish made the discovery for themselves, and became educated to a certain extent in the metallurgic art, a question arises,—which was their first discovery, gold or copper? for silver, not being found here in any considerable quantity in a pure or native state, is less likely to have attracted attention.

Gold,—in Irish, Or,—which is usually found in the purest condition in grains or nodules, and frequently on the surface, often washed down the beds of streams, and by attrition kept

bright, would naturally, the soonest of all the metals, attract attention. In such a state there is every reason to believe it existed abundantly in Ireland in former times, and is even still found in small quantities in Wicklow. It is also quite possible that it existed in several rivers in Europe in very early times. Such is the condition in which it is at present obtained in many parts of Africa, where the inhabitants who gather it and bring it to the coast possess no knowledge of the manufacture of it or any other metal. The most uncultivated savage lighting on a glittering gold nugget would naturally add it to his string of decorations, and then, by simply hammering it between two stones, could flatten and shape it into any form he pleased. Thence by accident or his own ingenuity, he might learn how to smelt so very fusible as well as ductile and malleable a metal, and thus the second stage would have been achieved. Therefore, where gold existed, it may fairly be presumed that it was the metal with which men first became acquainted; and, once upon the high road to discovery, there was no limit (by means of the hammer and crucible) to the extent to which gold might be worked.

Did manufactured gold and stone weapons and tools coexist? Our history is silent on this point, and as yet, well authenticated notices of the discovery of any such combination have not been recorded. It is, however, remarkable that the first historic notice of any metal in Ireland refers to gold: for under A. M. 3656, we read in the Annals of Clonmacnois, and those of the Four Masters, that in the reign of Tighearnmas, "gold was first smelted in Ireland, in Fotharta-Airthir-Liffe," or the territory of Fotharta, a woody district in Cualann or Wicklow, to the east of the River Liffey, and that the artificer's name was Ucadan. It is also stated that by him "goblets and brooches were first covered with [made of?] gold and silver in Ireland;" but that would only prove the knowledge of gilding, either in the liquid form, or, what is more probable, by plates of gold laid over the article, such as we

observe in counterfeit rings of great antiquity, and in some antique fibulæ which have come down to the present time. A similar application of gold may be seen in some of the Scandinavian breast-pins. It is, moreover, remarkable that most of the early forms of ornamentation, consisting of lozenge-shaped, chevron, zig-zag, or straight-lined patterns, together with volutes, concentric circles, and spiral lines, found upon our earliest stone monuments, and clay urns, of undoubted heathen origin, are also the forms of decorations chiefly observed in our earliest and simplest golden ornaments and bronze celts.

Topographers have not yet determined the precise limits of the Fotharta Cualann, but it was undoubtedly near and probably to the east of the source of the Liffey. Upwards of three-and-thirty centuries elapsed without any further reference to native gold occurring, in either our ancient Annals or modern history; not even the most extravagant of the Fenian romances alluding to the existence of the metal in Ireland, although the authors decorated the heroes of these tales with oriental splendour. In the year 1796, however, in the same part of Wicklow, perhaps on the very site of the furnace of Ucadan, upwards of £10,000 worth of unwrought native gold was obtained in about two months, and small quantities have, from time to time, been gathered there ever since. The subject of gold-working shall be considered in detail, when describing the collection of ornaments of that metal. Moreover, although gold was, for the reason assigned, in all probability, the metal first known to the Irish, the wrought specimens thereof which have come down to the present time do not exhibit the same simplicity of design and workmanship as those of copper and bronze; and, being all objects of personal decoration, the weapons formed out of other metals claim a prior attention in the order of this Collection.

Copper, Umha.—As yet scarcely any notice has been

taken of our Irish copper weapons, apparantly the forerunners of the mixed metal—bronze or brass. The only copper implements of very great antiquity in the Academy's collection are some celts, evidently of the very earliest pattern and greatest simplicity in construction, a couple of battle-axes, a sword-blade of the curved broad shape, usually denominated scythes, a trumpet, a few fibulæ, and some rudely formed tools. There can be little doubt that these copper celts are the very oldest metal articles in the Collection, and were probably the immediate successors of a similar class of implement of stone. They may, however, be considered along with those of bronze.

We have no notice of the discovery or first working of copper in Ireland, although it is found here in small quantities in a native state; but there are traditions of copper mines having existed from a very early period, and traces thereof have been found in the counties of Kerry and Cork, to which allusion has already been made at page 85, in describing the stone tools discovered therein. Both copper and cobalt are still found at Mucross. And among the wonders of Ireland related in the edition of the Irish Nennius, published by the Archæological Society, we read of Lough Lein, now the lake of Killarney, being surrounded by four circles, viz.:—one of copper, one of tin, one of lead, and one of iron. (See p. 220.) In the present day copper abounds in Ireland, and is chiefly obtained from the counties of Wicklow, Waterford, Cork, Kerry, Tipperary, and Galway: and in the year 1855 as much as 1157 tons of that metal, exported from Ireland, were sold at Swansea.\*

Although we do not possess sufficiently large quantities

<sup>\*</sup> Gray copper ore is chiefly found in Cork and Kerry, and the yellow ore, or copper pyrites, in Wicklow, Waterford, Kerry, Cork, and Tipperary; native copper is even still found in small quantity in the mines at Bonmahon, county of Waterford. The art of smelting copper, though now more complete than that of any other metal, has been only very recently brought to perfection.

of pure native copper, such as the Greenlander, Esquimaux, and certain North American tribes cut and hammer, without smelting, into arrow-heads, nails, and other tools and weapons, still the copper ore, as it here exists, is sufficiently attractive to call the attention of the inquiring eye of a half civilized It would, however, be mere speculation to consider now the question of breaking the ore and its matrix into small fragments,—rossting it, and then, by means of a flux, a powerful heat, and a peculiarly constructed furnace, smelting and casting it, as employed in the present day. We are quite in the dark as to the method employed by our ancestors. Upon the steppes of Tartary, and in some of the wildest parts of Russia, the remains of very ancient copper furnaces of small size, and of the most rude construction, have been discovered. It is remarkable that so few antique copper implements have been found, although a knowledge of that metal must have been the preliminary stage in the manufacture of bronze. The circumstance may be accounted for, either by supposing that but a short time elapsed between the knowledge of smelting and casting copper ore, and the introduction of tin, and subsequent manufacture and use of bronze; or from the probability of nearly all such articles having been recast and converted into bronze, subsequent to the introduction of tin, which renders them harder, sharper, and more valuable.

The softness of unalloyed copper was thus, in process of time, corrected by the admixture of tin, of which, together with minute quantities of lead, all our ancient bronze articles are composed. When this discovery was made, or this art first introduced, is unknown; but the circumstance of our proximity and early intercourse with Cornwall, the great emporium of that metal for the ancient world, as well as the fact of tin-stone being found in small quantities in Ireland, points to abundant sources from whence the hardening element of bronze could have been with facility obtained.

The Irish name for copper is umha, a pure Celtic word,

and that for tin is stan, like the Latin stannum. Whether we had originally sufficient native tin, or imported it from England, is uncertain, but there was a period when, according to the comparative value of the two metals, the one must have been nearly as plentiful in the Irish market as the other. Thus in a very ancient manuscript in the library of Trinity College, we read that "a pinguinn is the value of an unga of white bronze [bán umha, probably tin]; and half a pinguinn is the value of an unga of red bronze [derg umha or copper]; and the unga of bronze [umha] is the same weight as the unga of silver [airgead], and the red bronze is the same value as the tin [stan]; and eight grains of wheat is the weight of a pinguinn."\*

Dr. Charles Smith, in his "History of Kerry," page 125, says he collected tin in that locality. Sir Robert Kane has returned the following answer to a question respecting Irish tin:—"Tinstone is found in small quantities in the sand and gravel of the rivers in Wicklow, to the south and west of Avoca, principally those streams coming from Croghan Moira into it, as the Aughrim and its branches. The quantity is not large, and the supply uncertain, and hence, at the present prices of tin, quite useless. It appears in that place as in most other countries curiously associated with native gold. The tin-stone, or native peroxide of tin, or stannic acid, is the usual ore of tin, worked from similar sources in Cornwall."

The earliest notice of silver related in our Annals is that given at page 354, where it is associated with gold. A brilliant white metal much used in jewellery, and denominated Findruine, was known to the Irish in early times, the composition of which will be considered in the description of articles composed of that substance. There are a few trivial articles of lead in the Museum, but not of any great age.

Several chemical examinations of metal objects of anti-

<sup>\*</sup> Extract supplied by Mr. Curry from MS. H, 4, 22, T. C. D.

quity have been made at different times during the past century, both in this country and in England, with the results of which the learned are acquainted; but, for the purposes of this Catalogue, the very careful analysis made by Mr. J. W. Mallet, of articles in the museum of the Academy, published in vol. xxii. of the Transactions, will suffice. The papers of the late President Dr. Robinson, as also those of Mr. Donovan, Dr. Sullivan, and Mr. Cooke, in vol. iv. of the Proceedings, may be referred to with profit by those anxious to be more particularly informed upon this subject.

In sixteen specimens of antique bronze, consisting of celts, spear-heads, swords, daggers, chisels, rings and bells, examined by Mr. Mallet, it would appear that the amount of tin varied from 1 to as much as 13.88 per cent., and there does not appear to have been any fixed proportion maintained between it and the copper. Small quantities of lead were found in some. No. 16, on Tray A, is the celt referred to as No. 2 in Mr. Mallet's analysis, in which there was only 1.09 per cent. of tin:—"A proportion," says the author, "so small that it might be supposed to be derived from the addition of fragments of old bronze to the copper, or from imperfect reduction of the ore." Mr. Phillips obtained as much as 97.71 per cent. of copper, and 0.28 of sulphur, from an Irish spear-head; therefore, it must have been like our copper celts, almost entirely composed of that metal. Leaving the question as to how 1 or 2 per cent. of any foreign metal became mixed with the copper to chemists to decide, and taking the physical properties and ostensible colour of the metal as our guide, the copper celts have, with few exceptions, been separated and arranged on

<sup>\*</sup> See also Dr. George Pearson's careful analysis of "ancient metallic arms and utensils," some of which were Irish, published in the Philosophical Transactions for 1796; Mr. Alchorn's Analysis, in 1774, printed in Lort's paper on Celts, in the Archæologia, vol. iii.; see also vol. xviii. of that work; likewise "The Pre-Historic Annals of Scotland," Edinburgh, Sutherland and Knox; and Mr. Phillips' learned paper in the "Quarterly Journal of the Chemical Society," for October, 1851.

Tray A, and thereon amount to 26. It is remarkable that almost all these copper celts appear to have been formed upon two types. There are 30 copper celts altogether.

A special description of bronze, of a peculiar golden lustre, depending, it is supposed, on the admixture of a certain proportion of lead, having been observed in a collection of articles found at Dowris, in the King's County, it has since received the name of "Dowris Bronze." The Romans, we know, imported from Cyprus a copper called coronarium, which was given a golden colour by means of ox-gall. Zinc was mixed with copper for making some of the brazen articles in the Collection, especially the culinary utensils of later times. See also description of No. 9, Class II., page 158.

The Metallic Collection commences with the copper and bronze specimens in the third Compartment of the Southern Gallery, occupies all the Western Gallery, and passes down from thence throughout the whole of the lower story—the bronzes ending at the northern door of the Library.

ORDER I.—COPPER, BRONZE, AND BRASS.

SPECIES I.—WEAPONS, AND WEAPON TOOLS.—BRONZE I.

COPPER and bronze Celts, axes, and palstaves, occupy the entire of the third Compartment in the Southern Gallery, and also Rail-cases **E** and **L**. They form one of the most complete collections in the Museum, and are undoubtedly the most numerous assemblage of such implements known to the learned in Europe. When the stone-weaponed people acquired a knowledge of the metallurgic art, it would appear that they still retained the same principles of design, were influenced by similar habits of thought, and adopted the same mode of warfare,—the type of the old stone celt being preserved in the form of the newly introduced and gradually adopted metal weapon. Both stone and copper, or bronze, were, in all probability, for a long time coexistent, the former slowly giving way to the latter, as the matchlock was replaced by the musket, and,

after many years, by the rifle. In no other class of implement is the process of development more truly represented than in the gradual transition of the metal celt, and palstave, from the rudest and simplest to the most perfect form.

The term *Celt*, from *celtis*, a chisel,\* is quite conventional, but, having been adopted more than a century ago to designate those weapon-tools in the shape of axes, hatchets, adzes, and chisels (formerly called chip-axes), and preserved by authors since, it would be attended with much inconvenience to alter it now.† That they are the most ancient weapons, next to those of stone, may be gleaned from the fact of their being almost the only antique implements of any kind formed out of copper; from their great similarity, both in shape, use, and mode of adjustment, to the stone celts; and from there being as yet no name discovered for them, and no reference to them to be found in Irish history, as there is to swords and spears.

The entire Collection at present (July, 1860) amounts to 688, of all forms and sizes, including deposits, but not the celt-shaped tools on Tray QQ.

Upon careful examination, it has been found that thirty of the rudest, and apparently the very oldest celts, are of red, almost unalloyed copper.

The term pualstab or palstave—applied to the long, narrow-winged celt—is of modern introduction, and still of very limited acceptation; it is of Scandinavian origin, and said to have designated the weapons employed by some northern tribes for battering the shields of their enemies. (See Worsaae's "Primeval Antiquities.") Iron implements, like our loys, and called

<sup>\*</sup> See the Rev. Dr. Todd's notice of the word "Celt," in his translation of Baron Bonstettin's paper, in the "Proceedings," vol. vii. p. 42.

<sup>†</sup> See Plot's History of Staffordshire; Neville's Paper in the Philosophical Transactions for 1732; Borlace's History of Cornwall; and Lort's Paper on Celts, A. D. 1779, published in the fifth volume of the Archæologia. Vallancey, and some Irish writers of his school, called these Celts *Tuagh Snaighte*, but on what authority they do not say. See *Collectanea*, vol. iv., p. 55.

paalstabs, are still used in Iceland, either for digging the ground or breaking the ice. When, however, we stand—as in the Gallery of this Museum—before a collection of some hundreds of these implements, considered either as simple articles of war, or, like their predecessors in stone, as weapon-tools, and pass each series in review, we perceive that these so-called paalstabs are but a necessary and gradual link from the simple flat axe-blade, passed through a wooden handle, to the highly finished socketed celt, richly ornamented, and supplied with a loop for securing it to the shaft, which was inserted into it.

The simplest form of celt is a cuneiform or wedge-shaped piece of metal, evidently formed on the type of the large stone celt; longer than it is broad; curved on its sharp-cutting, hatchet face, and square or rounded at the opposite, narrow, and blunted extremely. In length, this weapon varies from upwards of 12 inches, as in No. 27, Tray B, shown by Fig. 247, on page 364, which is the largest yet discovered in Ireland, to No. 524 on Tray B, a small socketed celt, figured at page 386, which is scarcely one inch long.

For the sake of arrangement, the celts in the Academy's Collection, although presenting more than a dozen varieties of form, may all be classed under three different heads: first, the plain hatchet-shaped piece of metal which passed into and probably through its wooden handle—this may be denominated the Simple flat celt; secondly, the Winged celt, or Palstave, which mutually received and was received into the handle; and thirdly, the Socketed celt, into which the handle was inserted, as shall be explained hereafter. These three varieties pass insensibly into each other. The following illustrations represent typical forms of the simple flat celt, of which there are now in the Collection about 60 well-marked specimens, chiefly arranged on Trays A, B, and C, on the top shelf of the third Compartment of the Southern Gallery, and in Rail-case K.

COPPER CELTS.—Figures 245 and 246, drawn from Nos. 1 and 10, on Tray A, present us with the two principal va-

rieties of the pure copper celt, and both of them bear a great similarity to their stone predecessors of the rudest description, like those found in the Shannon, and described at pages 49 and 69. No. 1, cleaned and drawn one-half the size of the



Fig. 945, No. 1.

Fig. 246. No. 10,

original, is only 16 the of an inch across the thickest portion, and fines off to the edge all round. It was -Presented by Lord Farnham. No. 10, Fig. 246, which is in good preservation, is 6 inches long, 32 wide across the broad and remarksbly sharp-cutting edge, and 13 at the smaller end, which is about the sixteenth of an inch thick, while in the central portion it is upwards of a quarter of an inch in thickness. One side is a little fuller than the other, but in all other respects it is marvellously symmetrical, a circumstance observable, with few exceptions, throughout the entire Collection of metal celts. Like all the other copper celts, it is totally unornamented, but it has been cleaned for the purpose of showing the colour of the material, having had, when it came into the Collection, the usual brown crust or exidation peculiar to these copper specimens, and, for the most part, distinguishing them from the greenish verdigris hue on many of the bronzes. It was found in the county of Waterford, and presented by the Mayor of Waterford in 1853.

Proportionate to its size, the copper celt is usually thicker and rougher on the surface than that made of bronze, and nearly all the former have one side smoother than the other, as if they had been cast in single-stone moulds. A few of these copper celts are lunette-edged, as Nos. 15 and 19, but others are only simple wedges of cast metal. The cleansed specimens show that considerable variety of colour exists among them. For the details of these copper celts, see the descriptions of Tray A, at page 396.

BRONZE CELTS, of the first variety, are well represented by the accompanying illustration, Fig. 247, from No. 27, on

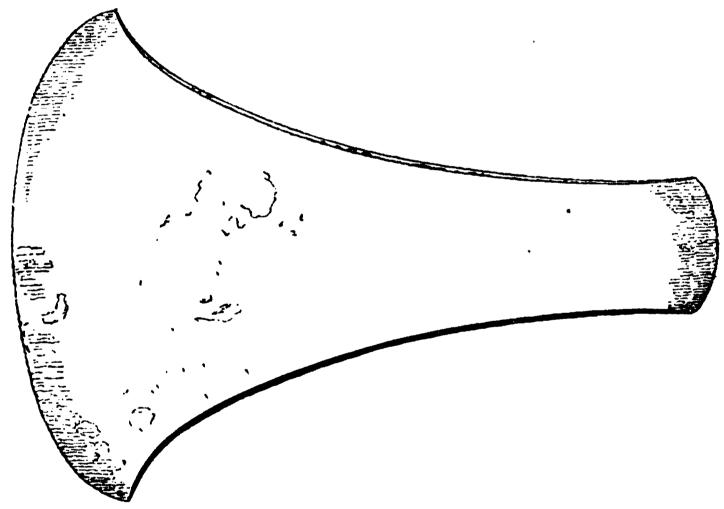


Fig. 247. No. 27.

Tray B, the largest specimen which has yet been recorded. It is 12½ inches long, 8½ broad in the widest part, three-eighths of an inch thick, and weighs 4 lbs. 14 oz.; it is a good type of a number of axe-shaped celts arranged beneath it on Tray B. It was found in the ruins of Kilcrea Castle, county of Cork, and—Presented by Sir Matthew Barrington, Bart.

The long, narrow celt, made by prolonging the hinder part which passed into the wood, is well shown by the accompanying illustration, drawn one-half the natural size, from No. 72, on Tray D, a beautiful cleaned specimen, composed

## Fig. 248. No. 72.

of gold-coloured bronze, and ornamented both on its sides and edges; 7½ inches long and 3½ thick. Of the same variety of the long, narrow celt, are the three specimens shown below, two of which likewise present us with types of orna-



Fig. 240. No. 606.

Fig. 250. No. 135.

Fig. 251. No. 145.

mentation, to be referred to hereafter in the general description of the decoration of celts. Fig. 249, from No. 608, in Rail-

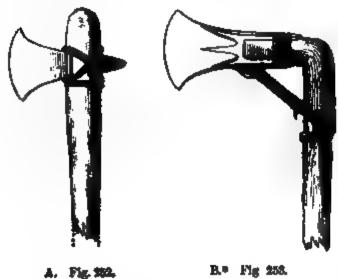
case K, represents a very perfect specimen, of a light green colour, 81 inches long, 4 wide at the blade end, half an inch thick, and decorated on both sides and edges. The patina on its surface has preserved all the sharpness of the ornamen-Fig. 250, from a specimen of the same class, No. 135, on Tray G, is 7 inches long, 3 wide, and highly decorated; it was found at Glencullen, county of Dublin. But No. 145, Fig. 251, on Tray G, although it may be classed among the long, narrow celts, is very peculiar, and, until a portion of it was cleaned, presented all the external appearance of copper. The alloy of tin is, perhaps, very slight, and it would appear to belong to a rude and early type; like several of the copper celts, it fines down to a rounded edge along the entire margin. It is 7 inches long, and 3½ broad in the widest portion. We possess two others, No. 43 on Tray C, and No. 144 on Tray G, of precisely the same form. The number of long, narrow celts in the Collection is 132: of these, 126, from No. 57 to No. 173, are displayed on Trays D to E, and 8 are placed in Railcase K.

As this classification is founded on the mode of fixing these implements in their handles, it is necessary to digress, and explain that process, before we examine the two other varieties,—the winged and the socketed celts.

Left without historic reference, and with but few pictorial illustrations, we are thrown back upon conjecture as to the mode of hafting and using the metal celt. As already stated, this weapon-tool is but the stone implement reproduced in another form; and, having once obtained a better material, the people who acquired this knowledge repeated the form they were best acquainted with; but economized the metal, and lessened the bulk, by flattening the sides. In proof of this repetition in metal of the ancient form of the stone celt, may be adduced the fact of a copper celt of the precise outline, both in shape and thickness, of one of our ordinary stone im-

plements having been found in an Etruscan tomb, and now preserved in the Museum of Berlin. (See Etruscan Collection there, No. 3244.) It is 6 inches long, and 21 wide in the thickest portion. (See Fig. 310, p. 395.)

The three following illustrations, A, B, and C, serve as types of the different forms of celts, and the mode in which they were hafted. A, Fig. 252, represents a simple, flat, wedgeshaped celt, passed through a wooden handle, and secured by a ligature, possibly of hide or gut. This implement is evidently the type of our modern axe. By use, however, as a



B.º Fig 258.

C.\* Fig. 254.

tool or weapon, it must, in process of time, have either split the handle or passed through it. To remedy this defect, a stop or slight ridge was raised upon the flat surface of the metal, generally at the junction of the posterior and middle thirds, as in Nos. 64, 72, 134, 137, &c. Still, this must have been a very imperfect barrier to the passage of the implement through the handle, and, therefore, a new plan was adopted, that of making the metal and wood pass one into the other, and thus arose what is termed the winged celt, or palstave, of which there are 211 specimens in our Collection, from No. 174, on

Figures B and C, drawn by Mr. Du Noyer, after the pattern of those published by him in the Archmological Journal, vol. iv. pp. 5 and 6, have the curved portions of their handles rather too angular for the ordinary natural growth of the wood.

Tray I, to No. 356, on Tray M, and from No. 632 to No. 659, in Rail-cases K and L. Here a curved piece of wood, like a hurl or an ordinary crooked walking-stick,\* was split or cut, so as to receive the metal weapon, which had a slight wing or flange raised upon the upper and lower edges of the narrow portion, to prevent its joggling or slipping up and down; and the parts, thus adjusted, must have been bound round after the fashion shown by B, Fig. 253. That the winged celt had, however, originally no stop, is shown by Fig. 258, on page 373. Still, a hard blow with this implement was apt to split the wooden handle, and so man's ingenuity devised a larger stop or elevated ridge near the middle, at the junction between the axe-blade, or cutting portion, and the parts which passed into and received the sides of the handle, against which they abutted. Nevertheless, the implement was imperfect, and still liable to split; and so, in process of time, the third great step in celt manufacture was achieved,—that of making the metal the sole recipient of the wooden handle, by developing the wings, enlarging and bringing up the stop, and gradually removing the septum that divided the blades of the handle, until the implement became what is called a socketed celt, of which an example is given in the illustration, C, Fig. 254.

This was a great step in advance; yet the implement was imperfect, because, as every person acquainted with the working of such like tools is aware, it was apt to kick, the blade or cutting edge turning upwards at each repeated blow, until it finally flew off the handle, as any badly fitted hammer, hatchet, or adze would do. To obviate this defect, a loop was added to the lower edge, on both winged and socketed varieties, and to this was attached a stay either of metal or cordage, which occupied the angle between the celt and its handle where it

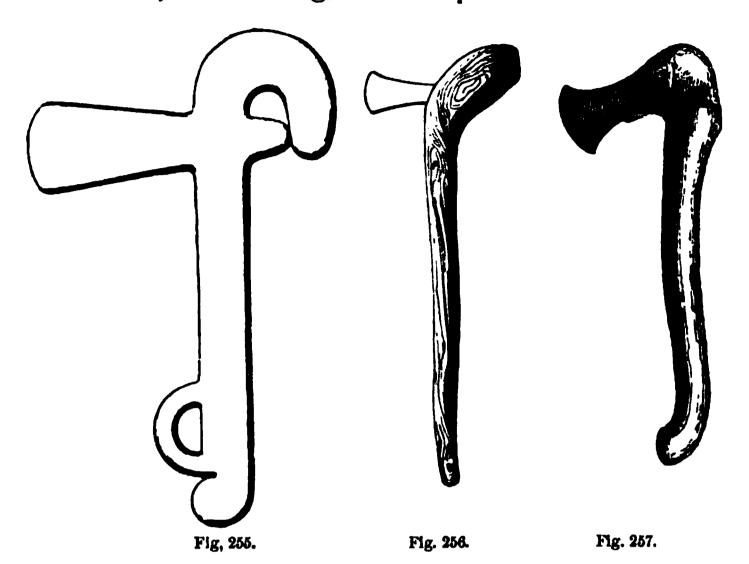
<sup>\*</sup> See also Mr. J. M. Kemble's Address, in the Proceedings, R. I. A., vol. vi. p. 472.

was fastened; but by what means, whether by a ring, staple, or tying, we at present know not. However, this additional security against the flying off of the metal head was not the discovery alone of the age when the socketed celt was invented, for it is very common amongst the palstaves. It is remarkable that we find no rivet holes in any of these hollow celts; but in some rare specimens, in other countries, a notch, and sometimes a hole at the end of the septum of the palstave has been observed, to prevent its passing back too far, and splitting the handle, whether curved or straight. certain that the palstave was always attached to a curved handle, although, from the existence of the loop or ring underneath, most of the Irish ones would appear to have been so; some were probably attached to straight handles, like chisels, or the modern small instrument usually employed for cleaning the plough; and, in the Scandinavian collections may be seen several long slender paalstabs, some with fragments of wood remaining, which proves the truth of this con-Such implements, many of which are highly decorated, may have been employed as spears in combat; at the same time it is not improbable that some of our large, rude, winged celts, or palstaves, may have been employed for agricultural purposes, in turning up the surface of the soil, like the mattock or hoe still in use amongst the Egyptians and other half civilized people. Our own iron loy, or narrow, onesided spade, is but a development of the ancient celt.

In this inquiry as to the mode of fixing the celt in its handle, we are not left altogether to conjecture, or forced to draw upon our imagination, for, as instances of handles of wood, bone, and horn, used with stone celts, have come to light within the last few years (see Figs. 53, 160, and 161, pages 46 and 251), so have some examples of the handles of metal celts turned up, as the following notices and illustrations

<sup>\*</sup> See Worsaae's "Nordiske Oldsager," 1859, Pl. 37, Nos. 181, 182, and 183, drawn one-half the natural size.

attest. Figure 255 is reduced from the representation of a handled celt, 4 ft. 9 in. long, carved on one of the roofing stones



of a very ancient sepulchral monument at Lok-maria-ker, near Vannes in Brittany, for which the author is indebted to M. de Keranflech. This carving may, however, represent a stone celt, but the principle is the same.

Here the ancient Breton endeavoured to prevent the head splitting or passing through the wood by inserting the celt across the convex part of a curved stick, so that its small end rested against the concave portion of the crook. The guard, which was, probably, a flexible piece of wood fixed on the handle, evidently points to the warlike use of this implement. In the same locality was discovered another similarly sculptured stone, but without a guard. Figure 256 represents the model of a small celt attached to its handle, brought from "Little Fish River," in Africa, and exhibited to the Academy by the late Dr. Ball, in 1844. (See Proceedings, vol. ii. p. 511.) Figure 257 possesses great interest, as it is native, and is the only instance of the original handle of an ancient metallic celt

which has yet come to light. It is 13\frac{3}{4} inches long, and was found in the bed of the River Boyne, near Edenderry. The head metal is provided with a loop, which is worn through at one point. This curious relic is the property of Mr. Murray, of Edenderry, who has for the present deposited it in our Museum.\*

Besides the foregoing, we have pictorial evidence of the celt and its curved handle in the figures carved in relief on the crosses at Monasterboice, where, from the style of drawing, they resemble the war clubs of the New Zealanders. (See Fig. 194, on page 304.†) Among the many uses to which the sharp-edged metallic celt could be applied was like that of the carpenter's mortice-chisel, as shown by the number of specimens hammered at the small end.

Some northern archæologists hold that metal implements were introduced by a new and totally different race from those that worked only in stone. This may be true in Scandinavia, where there are no copper articles, and all the bronzes are well formed, highly finished, and many of them elaborately decorated; but it certainly is not applicable to the metallurgic art in Ireland, where the earliest implements of both these metals are of the rudest forms, and evidently copies of the stone articles of the same class; and the transition is so gradual that we can easily trace the process of development, of which no better example can be afforded than that of our grand collection of celts. Moreover, the composition of the alloy is said to be fixed and regular in Scandinavia, the metal being nine-tenths copper, and one-tenth tin, whereas in all those articles which have been analyzed in Ireland, the proportion varies exceed-

<sup>\*</sup> See Rail-case L. The Academy is much indebted to Mr. Murray for the liberality with which he has allowed this and other articles from his collection to be drawn, for the purpose of illustrating our great national Museum. (See also p. 252.)

<sup>†</sup> Mr. G. V. Du Noyer has published two most ingenious papers in the Archæological Journal, vol. iv., upon the adaptation of the handles to both stone and metal celts, to which the reader is referred.

ingly, either because the early metallurgists had not hit off the right proportions, or had used different quantities to produce different effects in hardness, sharpness, colour, &c. Furthermore, as we pass northward, from Denmark to Norway and the top of Sweden, the amount of bronze gradually lessens, and in the former country is replaced by iron. Neither copper, tin, nor gold are found in Denmark, and no moulds of any kind for casting have been discovered there, although the spuds or stöbeknold are common. It would appear that the stone period was longer, and the metal one shorter and later in all these countries than in the British Isles, and Ireland in particular. In the Copenhagen Museum may be seen celts and paalstabs of iron, and of comparatively modern date; and in the central parts of Sweden the short iron hoe or pick, used by the peasantry in grubbing up roots of trees, is not much larger than, and greatly resembles some varieties of the ancient bronze celt.

With respect to the Phœnician origin of our warlike and decorative metal articles, assumed by some writers, until some proof either from authority, by argument, or by analogy, is produced in support of it, we need not discuss the question here.

The Winged Celt, or palstave, presents the greatest variety of all, as may be seen from the cuts on the adjoining page. Fig. 258 is from a simple, narrow, chisel-edged celt, No. 175, on Tray I, in which the side edges project into flanges, so as to form grooves for the reception of the cleft handle. It is 4½ inches long, is perfectly plain, and not provided with a stop; the breadth of the wing is seven-eighths of an inch. Fig. 259, drawn from No. 234, on Tray J, 5½ inches in length, shows both wings and stop very perfectly, the former being elliptical, and the latter rising nearly to the level of the wing. The cutting edge looks as if it had been frequently ground, and on the flat surface there is a raised cast ornament. It was Presented by the executors of Leslie Ogilby, Esq. Fig. 260, from No. 248, on Tray K, is the broadest specimen in the Col-

lection, and measures, across the centre of the straight-edged, lozenge-shaped wing, 14 of an inch. The stops are but slightly developed, and must have been bedded into the sides of the



Fig. 288. No. 175.

Fig. 259. No 234.

Fig. 260 No. 248.

handle, which appear to have passed below them; and, where the wings merge into the edges of the blade, a deep, welldefined groove spreads down on its surface. Upon the external face of each wing is an oblique elevated ridge, intended, probably, to keep the tying in its place.

Among this very extensive class of celts we find many remarkable varieties, two of which are well represented by the subjoined illustrations. Fig. 261, from No. 167, on Tray E., 47 inches long by 23 across the broad semilunar blade, is

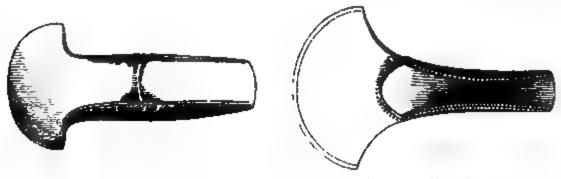


Fig. 261. No. 167.

Fig. 203. No. 622.

typical of one of these subdivisions. The rounded side edges, which are beautifully ornamented in the casting with a raised hexagon pattern, project somewhat above the level of

the flat surface of the implement; and the curved stops (which, with the wings, are but rudimentary) have, like all such parts, their concavities facing the handle. There are about fifty specimens of this kind of celt in the Museum, and which are for the most part attached to Trays G and E. One of the most graceful in form, and the most perfect celt of its kind in this or any other Collection, is that represented by Fig. 262, from No. 632, in Rail-case K: it is 6‡ inches long, by 4½ wide in the blade, and has been cleaned\* to exhibit the beautiful golden colour of the bronze, and the fineness of its decorations. The shank portion is very narrow; the wing or flange is well developed, but the oblique stop is only rudimentary, and not likely to serve the usual purpose of that addition to the winged celt. The blade is semicircular on the cutting edge, which is beautifully sharp, and does not appear to have ever been ground or hammered; the decoration consists of minute dotts, apparently formed in the mould; and nothing can exceed the fineness of the casting. It was found in the county Westmeath, and presented by Dr. Dillon Kelly, of Mullingar. This is the special form of Irish celt that was, in all probability, attached to a straight handle. It may originally have been a badge of office. There are several specimens of the same type on Tray I (see in particular Nos. 181, 187, 198, and 203 to 215), but they are not so large, or in such perfect preservation.

The cleansing process employed in this and other bright bronze articles in the Museum is by carefully dipping them in a weak acid, in the same manner as a modern brass casting is cleaned after it comes from the mould. When the article has been much encrusted, it is necessary to hold it over the fire for a few minutes. The Academy is much indebted to Mr. Mooney, the brass-founder, of Ormond-quay, for much civility in this matter. Some antiquaries may think it a desecration to clean an antique metal article, as well as to remove a small fragment, for the purpose of analysis. Without, however, resorting, in some instances, to such processes, we should remain ignorant on two most interesting subjects,—the composition of the metal, and the peculiar colour and general appearance of the weapon or ornament when it came from the hands of the maker. Moreover, it is probable that all these articles were originally varnished or lacquered, like modern brasses, and that for many years such varnish preserved the golden lustre of the bronze.

Following out the theory of development in these articles, it is necessary at this stage of the inquiry to examine into the six following points separately:—The cutting edge, the stop, the wing, the side or profile view, the loop, and the socket.

The Cutting Edge presents great diversity, from a very slightly curved line to that of the segment of a circle, the centre of which would be about the junction of the lower and middle thirds of the length of the instrument. In the simple axe-shaped celts, and also in the socketed variety, it is seldom much curved, and in some of the latter is almost straight, or resembles that of the furmer used in turning. But in the palstave or flanged celt, we find three well-marked varieties: the saddler's knife-shape, in which the blade spreads out, sometimes to three times the width of the shaft, from which it occasionally springs at an angle (see Fig. 261, on p. 373); the lunette or semilunar form, as in Figs. 259 and 260 on that page, the former of which shows the recurved peculiarity, in which the extremities form hooked terminations, and many illustrative examples of which may be seen on Trays G, I, and J; and the fan-shaped, as in Fig. 262, and many specimens on Tray I. As in every other peculiar feature of the celt, these diversified forms of the cutting edge shade one into the other imperceptibly. Hammering would increase the hardness of this description of metal, but we do not observe any marks of such upon the cutting edges of those celts which are in a good state of preservation. They all appear to have come, like the swords, perfectly sharp from the mould. Some few, however, bear the marks of grinding and sharpening, perhaps with a whetstone, like those to be seen on Tray mm, in the Stone Collection, with holes at the extremities for attaching them to the person, but particularly by means of those shuttleshaped stones, so numerous in Scandinavian collections, and which are now generally believed to have been used as rubstones.\* Some of the celts are notched, worn, or broken on

<sup>\*</sup> See Nos. 58 and 59 in Scandinavian Collection, p. 133. Since that portion of

the cutting edge, but they are usually such as had remained some time in the hands of the finders, or of dealers. See remarks on No. 149, Tray H, p. 406.

The Stop commences in a rudimentary form even on plain, narrow, triangular celts, and where it could not have been of much use, as on No. 35, and as shown in No. 72, Fig. 248; but it is not seen on any of the copper specimens. It seems to have proceeded pari passu with the development of the wing, and is particularly manifest in the specimens on Trays **F**, G, and It also seems to have been coeval with the ornamentation, which in most instances it separated from the upper portion of the weapon; there are, however, exceptions to this in Nos. 72 and 136, &c. Even when the wing was fully developed, the stop still remained rudimentary, as in Nos. 187, 198, and 204, on Tray I; but on Tray J we perceive the direct object of this improvement, particularly in Nos. 212, 225, It was not of necessity associated in all instances with the wing, as Nos. 179, 196, 197, also 175, Fig. 257, page 373, have well-formed wings and no stops. At first it was a slightly raised bar, almost straight, and placed much nearer the point or small end than the hatchet face of the instrument, as in Nos. 124 and 125, on Tray G; it then became curved, as in Nos. 132 and 133, the concavity being always towards the handle; and in some cases it is nearer the cutting edge than the small end, as in Nos. 181, 202, and 233, on Trays I and J; also in many specimens on Tray M, as Nos. 300, 309, &c.; but these are rather the exceptions. flange or wing became fully developed, the stop was generally attached to it at the junction between its anterior and middle third. In a long series of specimens it does not rise

the Catalogue descriptive of the Stone Articles was printed, I have seen some of these shuttle-shaped stones in Scandinavian collections, encircled round the narrow edge with a band of metal, having a ring at one extremity; they were evidently used for the purpose described in the text; such an article, probably, hung at the side of every soldier, for sharpening his sword or battle-axe.

Tray I), but subsequently it rises to its full height, and in some instances a little above it (see particularly Nos. 225 and 254 on Trays J and K, together with several specimens on Tray M). Finally, the stop assumed the character of a pocket or small side socket, into which the wood passed, the first examples of which are Nos. 249 and 252, on Tray K. On Tray L there are many specimens showing this peculiarity, as Nos. 274, 275, 276, and 284, and also some on Trays M and N, to those on the latter of which the loop had been added (see Nos. 344, 347, 349, and 351); so that, by bringing up the stop a little more between the wings, in order to close the open of the latter, and at the same time removing the septum, the socketed or recipient celt was at once formed. Of this we

have a very good example in No. 276, on Tray L, here figured one-third the natural size. The wings and stop form a pouch, with a semicircular

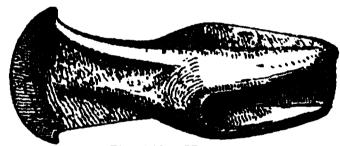


Fig. 268. No. 276.

margin on each side, into which the blades of the handle fitted. Either the stop itself or the part immediately in front of it towards the blade, became ornamented in a very rudimentary state, as in Nos. 186 and 189, on Tray I, Nos. 212 and 230 on Tray J, Nos. 235 and 250 on Tray K, and No. 317 on Tray M. As the stop rose into the socket, the projection caused thereby produced a form of ornament, as may be seen in Nos. 275, 276, and 284, on Tray L, and No. 314 on Tray M. Even after the loop was added to the long-winged celt, the stop was occasionally omitted, as in No. 341 on Tray N. In some instances the stop is oblique, as in No. 60 on Tray D, and No. 632 in Rail-case K.

The Flange or Wing.—By raising the side edge of the simple celt over the level of the flat surface, either in casting or by hammering it into an ornament, we perceive some rudiment of what afterwards formed the flange or wing, as in Nos. 29, 32, and 34, on Tray C, and Nos. 57, 69, and 72, on Tray D, but it does not take a decided shape until we come to examine the specimens on Tray G, when the celt itself had altered its outline from the simple, triangular, hatchet form, to the long, narrow sub-variety, with the semilunar, lunette, fan-shaped, or saddler's knife blade:—see for example, Nos. 123, 125, 128, and 133, on Tray G, where we find it connected with the rudimental stop, and an advanced style of ornamentation. In most cases it occupies the greater length of the shaft, and, although found among the lunette-edged celts, it more truly belongs to the long palstave variety, as shown on all the specimens between Nos. 206 and 356 on Trays J to M. In the accompanying cut, Fig. 264, drawn

one third the natural size, from No. 128, on Tray G, the shortest celt of its kind in the Collection, the flanges, or rudimental wings, slightly overlap the central grooved portion above, and run down into the broad, lunette, cutting edge below. It has no stop. See also No. 197, Tray J.

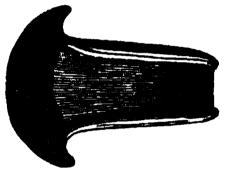


Fig. 264. No. 128.

When fully developed, the wing presents a lozenge shape on its lateral aspect, and is sometimes an inch and a half broad, as in several specimens on Tray **K**; in No. 248, of which it is 1½ inches across, see Fig. 260, p. 373. Its edge is generally thin, so as slightly to overlap or sink into the handle, and in most instances it passes a short way below the stop, except in some of the rude specimens on Tray **J**, viz., No. 220. The most elevated portion of the wing is generally immediately below the stop, but sometimes is united with it so as to form a shallow socket. Towards the small extremity the wing fined off into a point; but in front it frequently passed down the side of the blade and was lost in the edge of that portion; or by turning inwards it as-

sisted with the stop to form the lower ornament. In most of the saddler's knife shaped specimens a semilunar ridge united the ends of the wing (see Nos. 179, 180, and 182, on Tray x).

In Nos. 241, Tray E; 303, 314, 316, 329, Tray E; 341, 342, 343, and 350, Tray M, the lower extremities of the thin high wings were turned in and hammered over the low narrow stop, to assist in completing the rudimentary side eocket, as shown in the annexed illustration, drawn one-fourth the natural size, from a short chisel-shaped palstave, No. 342 on Tray M. In others of the same variety this peculiarity was evidently produced, in whole or in part, by the mould, as may be seen in Nos. 315 and 316 on Tray M. In this particular these specimens resemble the Etruscan celts.

Pig. 245, No. 242.

The Side Edge, or narrow profile view of the celt, presents great diversity, chiefly dependent on the full-faced shape and general character of the individual specimen. Several of these figured in the preceding part of this section afford examples of the side outline, see especially all those represented on page 373. The following cuts, together with those already



referred to, comprise nearly all the examples of side outline, and serve at the same time to illustrate the form of ornamentation common to that space. The profiles of plain copper,

or flat axe-shaped celts, such as those shown at pages 363 and 364, are, for the most part, simple ellipses, and do not require illustration. Of the same description are the long narrow celts; but many of them present a hammered ornament, of which Figures 248 and 249, on page 365, are good illustrations. The side view of the former is represented above by Fig. 266, and in its style of ornamentation resembles the carving on the edge of the long horizontal stone jutting out from the mound some feet above the present entrance to the great Pagan tumulus at New Grange. This side ornament would appear to have been produced by hammering, although the spaces between the lines are wonderfully symmetrical. Figure 267 is a side-view of the beautiful fan-shaped celt, No. 632, represented at page 373. Figs. 268 and 269, drawn from Nos. 621 and 132, afford profile views of two kinds of roping or twisted ornament on the sides of short, thick, slightly flanged, and lunette-edged celts, in which the broadest portion is about the site of the stop. Fig. 270 is the profile view of the beautiful, cleaned, fan-shaped celt, No. 633, in Rail-case K (see page 433), having a foliate cast ornament on the outside of the broad wing. Fig. 271, the side aspect of No. 209, on Tray J, shows a very peculiar form of cast leaf ornament on the outer surface of a broad-winged palstave enumerated at page 410. Fig. 272 exhibits a rude form of ornament, with raised hammered bars, as if for fixing the tying that passed round the wings and sides of the handle at this part of No. 225. See page 411.

The Loop.—For the reasons already stated, and to secure the celt to the handle more effectively, a loop or eye was added in the casting to the inferior edge of both the winged and socketed celt, as shown in 19 specimens of the former, and all but 3 of the latter in this Collection, the object being evidently to provide against the flying off of the head, by securing it to the shaft by a stay between points where the greatest stress

would come when a heavy blow was given with the instrument, as explained at page 368. There is little variety observable in this addition to the perfecting of the celt, except where, in some instances, it became mixed with the ornamentation in its vicinity. What the brace was made of, or how fastened below to the handle, has not yet come to light, the only instance in which that part of the instrument was discovered being where a large bronze ring passed through the loop, in a celt found in Yorkshire, and now in the British Museum, and engraved in the Archæologia, vol. xvi., and also in the Archeological Journal, vol. iv. That metal straps or rings played in the celt loops, in some of our Irish specimens, is manifest from the worn appearance of that shown in the looped specimen, Fig. 257, at page 370. But the great majority of the loops bear no marks of wearing on their internal faces; on the contrary, in a good many, the cast marks are as fresh as the day they came from the mould, thus evidently showing that the brace or stay had never been applied, or was, probably, formed of some flexible material, such as hide, gut, or vegetable fibre.

In the palstave celt the loop is usually placed beneath the stop, and in the socketed ones is always close to the top. Figure 273, drawn one-third the natural size, from No. 353, on Tray M, represents the usual position of the loop, in a long narrow specimen of the palstave variety, with a shallow groove, and a triple-cast ornament on each side below the point where the wings and stop coalesce to form the slight lateral socket. The lunette cutting edge, with much recurved points, has the appearance of having been ground.

Fig. 278. No. 858.

Fig. 274 is drawn from a very rare specimen of double-looped palstave, in the Collection of Lord Talbot de Malabide,

by whose permission this illustration is afforded. This curious celt is  $6\frac{1}{2}$  inches long, has a chisel edge, and a shallow groove

between the wings, which turn in below to form the curved stop. The loops are not quite symmetrical. It was,

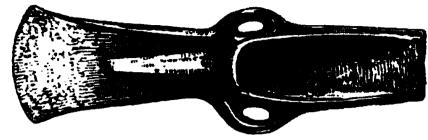


Fig. 274.

probably, attached to a straight handle, to which it was bound both by circular and longitudinal ligatures.\*

Without an actual examination of the various specimens alluded to, the force of the foregoing description cannot well be understood.

The Socketed Celt.—In the previous description and illustrations may be traced the successive and uninterrupted development of the third and final variety of celt, from the simple, flat, wedge-shaped piece of metal, to the hollow implement, formed to receive the end of the straight or crooked handle. As the stop became developed in the palstave variety, the enlarged wings merged into it, so as to form a socket on each side, as shown in Fig. 263, page 377. From this there was but one step more, that of bringing up the stop between the sides of the wings, and removing the thin and gradually decreased septum, when the true socketed celt was achieved.

Why our ancient celt-makers never conceived the idea of casting a wedge or axe-shaped piece of metal, with a hole in it, passing a handle through, and thus effecting the most common and useful instrument subsequently made of iron,—the hatchet, hammer, or battle-axe,—is remarkable. But although such articles have been discovered in Holstein, Saxony, and Denmark,—some of which are of great beauty, and highly decorated even with gold,—no implement of this description has yet, we believe, been found in the British Isles, certainly not in Ireland.

The simplest form of the socketed celt is that shown on

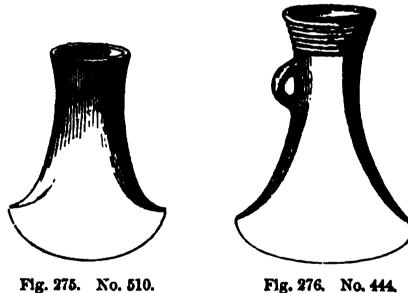
<sup>\*</sup> See Archæological Journal, vol. ix. p. 194.

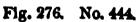
page 384, by Fig. 275, No. 510, on Tray R, perfectly plain and unornamented, without a loop,  $2\frac{1}{16}$  inches long,  $1\frac{4}{5}$  wide across the broad cutting edge, and it the clear of the This is the scarcest form, there being but oval socket. three specimens thereof in the Collection. The great majority of socketed celts have loops placed more or less near the socket margin, but always situated above the middle of the instrument. The socket itself is either circular, oval, or quadrilateral, and generally occupies about four-fifths of the length of the celt, ending in an acute angle, and in the majority of specimens having one, two, or three ridges, marking the joinings of the core-pieces used in casting. The particulars of many of these peculiarities are specified in the details of Trays o to s, at pages 418 to 429. When present, these raised cast marks served to retain the wooden handle when driven firmly into the socket;—see particulars of No. 408, at page 421, in which specimen a portion of the original handle still remains. In external shape the socket presents several varieties,—such as the circular, compressed or flattened, quadrangular, hexagon, and octagon, examples of all which are given in the accompanying illustrations. The cutting edge in the socket celt is generally semilunar, although in some instances nearly straight or chisel-shaped. A few specimens, Nos. 428, 436, and 446, on Tray Q, are axe-shaped, like those small iron hatchets of a later period, preserved in the Iron Collection. There are a few long, narrow, square, chisel-edged, socketed celts, on Tray 5 (see Nos. 549, 558, 568, and 569), which at first view would appear better adapted for tools than weapons; yet their graceful outlines, and, in some instances, elaborate ornamentation, would lead us to infer that they were all weapons.

In size the socketed celt varies, from No. 568, which is 58 inches long, to No. 524, the smallest celt of any description in the Collection, and possibly the least ever found in the British Isles, and represented by Fig. 285, at page 386.

The lip of the socket is generally ornamented, and very frequently surrounded by one or more raised bands or fillets; sometimes by a very well-cast roped ornament, evidently made to represent a cord of twisted gut. A special description of cast ornament, consisting of longitudinal raised bars, generally ending in annular or button-like projections, sometimes occupies the sides of this implement. In one rare instance, Fig. 280, on the next page, the ornamentation is more elaborate, but in no case is it produced either by the hammer, punch, or graver, as in the flat, simple celt. A similar description of ornament is found on long square socketed Breton celts. See Archæologia Cambrensis for June, 1860.

The following illustrations present types of the most remarkable varieties which the socketed celt assumes, in a collec-







Flg. 277. No. 466.

tion amounting to 201 specimens, including those in Rail-case Figure 275, one-half the natural size, has been already described at page 383. Figure 276, one-third the natural size, represents No. 444, on Tray Q, a specimen of narrow looped and socketed celt, 4 inches long, with a broad hatchet face, circular socket swelling into a trumpet mouth, and decorated with a raised rope ornament. Figure 277, of the same class, and also drawn one-third the size of nature, from No. 466, on Tray Q, is a slender socketed celt,  $4\frac{1}{4}$  inches in length, of an irregular hexagon form in the middle, and circular in the slightly everted and decorated socket. It differs in the position of the loop, the breadth of the blade, the external shape of socket, and the ornament, from Fig. 276.

Of the same variety are Figs. 278 and 279, drawn one-fourth the natural size, from Nos. 411 and 417, Tray P, but differing slightly in ornament and shape of socket; while Fig. 280, No. 460, on Tray Q, a small, broad, com-



Fig. 278. No. 411.

Fig. 279. No 417.

Fig. 280, No. 460.

pressed, highly decorated celt, is shown one-half the size of the original. By Fig. 281 is shown a good specimen of the axe-shaped, socketed celt, drawn one-third the size of nature, from No. 436, on Tray Q; it is 3½ inches long by 3½, measured along the cutting edge; although angular outside, the socket is rather oval internally. Fig. 282 shows



Fig. 281. No. 486.

Fig. 283. No. 468.

Fig. 283. No. 558.

the form of raised linear ornament peculiar to the socketed celt. The specimen from which this was drawn, one-third the natural size, No. 468, on Tray Q, is 4½ inches long, flat and much compressed on the sides, oval in the socket internally, but irregular externally. Figure 283, No. 558, on Tray S, represents one of the finest specimens of the long, narrow,

quadrangular, socketed variety in the Collection, 5 inches long and 15 broad, with nearly parallel sides, and decorated on each

Surface as well as round the square socket edge. Of this rare variety there are only five specimens in the Collection. (See page 429.) Of these, Fig. 284, one-fourth the size of nature, from No. 563, affords a good idea of a short and slightly different form of the same variety. In the following



Fig. 284. No. 563.

cut (Fig. 285, No. 524), is shown, the exact size, the smallest celt in the Collection, already alluded to at pages 362 and 383.

The oval represented above shows the size of the opening of the socket. The article could not have been of any use either as a tool or weapon, and must be regarded in the light of either a toy or the representative of a socketed celt, made as a figurative emblem for placing in the tomb: numerous examples of such articles, chiefly swords, knives, and daggers, have been discovered in Denmark. (See Worsaae's Nordiske Oldsager, last edition, Plate 33.) Another very small soc-



Fig. 285. No 524.

keted celt, although not so minute, forms part of the deposit of antiquities recently made with the Academy by the Royal Dublin Society. (See No. 686, in Rail-case L.)

It now remains but to consider the style and variety of ornamentation, and the method of casting these ancient weapons and tools. All nations, no matter how rude and uncivilized, according to our present acceptation of these terms, had some special characteristic and peculiar form of ornament or design. Thus the ancient Scandinavians carved figures of boats, and rude representations of men and animals engaged in battle or the chase, upon the surface of the natural rock.\* The North American Indians also indented upon the faces of

<sup>\*</sup> See Holmberg's Nordbon under Hednatiden. Stockholm: 1852-4.

large blocks of stone certain characters, consisting of circles, involuted and wavy lines, and other marks resembling the spider's web; and towards Central America the Mexicans carved the figures of men, both on the rocks, in situ, and on rude stones, carried to their position by human agency. Upon several of the pillar-stones and monolithic monuments of the world may be found ancient carvings. In Egypt these were a literature, either alphabetical or ideagraphic: but whether, in other instances, these curious engravings, not illustrative of men, animals, or plants, but consisting of mere lines assuming different shapes, and cut into the stone, possibly with a flint and hammer, or with another stone harder than the one acted upon,—were intended simply for ornamentation, or were hieroglyphs having a certain occult meaning like a cypher, and known only to a few persons in the secret, is now but matter of speculation.

Writers on the primeval arts of different nations have left unnoticed those characteristic of the Celtic Irish people, in Pagan and very early Christian times, except such as belong to the architecture, stone tracery, and shrine decoration of the latter period. The abundant supply afforded by the remains of the former epoch in the carvings on the Pagan sepulchres of New Grange, Dowth, and other similar monuments; the various decorations on cinerary urns, and the ornamentation on our earliest metal articles of either gold or bronze, have as yet been overlooked. The carvings upon those ancient sepulchres alluded to consist of zig-zag, chevron, lozenge, fern-leaf, and other straight-lined indentations, apparently cut in with a pick, and in some instances forming intaglios. Another form of marking consists in a number of concentric circles, or highly convoluted spires and volutes, turning one into the other; or of semicircles, pinked, or scolloped patterns, also hollowed from beneath the original surface of the stone. In some instances these spires or volutes are double, the looped end of

the coil forming an obtuse curve within. The spire was subsequently repeated in enamel, as shown by the bead (Fig. 123, at page 165). Wheel-like ornaments are also not uncommon. In a few rare cases both the straight line and spire ornament are beautifully and accurately carved in relief, of which the great stone beneath the mouth of the cave at New Grange is a fine example.\* Upon the natural surface of several rocks in the county of Kerry have been noticed small cupped indentations, evidently artificial, and in some instances surrounded by concentric circles, which the Rev. C. Graves, Secretary to the Academy, in a most ingenious paper, read 28th February, 1859, surmised to be plans or maps of forts, although as yet none of them have been identified with existing mo-The collineation, however, observed both on the numents. artificial indentations on those stones, and the position of the mounds and raths themselves, as may be seen by a reference to the Ordnance Maps, is very remarkable.†

Infinite is the variety of ornament impressed upon the surface of our sun-dried or half-burnt clay urns, as shown by those typical illustrations given from page 177 to 183 of this work, and as shall be again referred to in considering the ornamentation of the precious metals.

The Ornamentation on metal celts is of three kinds:—that effected by hammering, or with a punch; by the graver; and in casting. The hammered ornament was introduced very early in what may be termed the infancy of metal celt-making, and is well illustrated by the ornamentation on Figs. 248, 249, and 250, given at page 365. It was apparently effected

<sup>\*</sup> See the engravings of the different varieties of ornament alluded to in the text, given in the Author's "Beauties of the Boyne," from page 192 to 201.

<sup>†</sup> The plaster cast of one of these indented rocks, called in Kerry Vousheens, made many years ago from a stone in the vicinity of Staigue Fort, and presented to the Academy on May 22, 1854, by Dr. Robert Smith, now stands in the hall near the Museum door. See Proceedings, vol. vi., p. 94.

with a sharp-edged tool, and might have been done with a flint or sharp stone celt. It wants the regularity subsequently effected by the punch, but generally consists of a number of oblique indentations, assuming the form of a fern-leaf, or what is termed in masonry herring-bone. Sometimes the hammered decoration took a more definite form, as in Figs. 249 and 250; occasionally it was included within straight lines made by a graver; but that instrument was much less frequently used with the celt than with articles composed of the precious metals, such as the gold ornaments, &c.

The following illustrations afford a good idea of those hammered, punched, engraved, and cast ornaments. The punchings were effected either with a straight chisel, a small round-faced tool, which left a circular indentation on the metal, or an oval or elliptical instrument, hollowed in the centre.

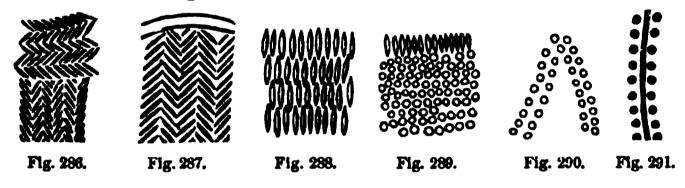
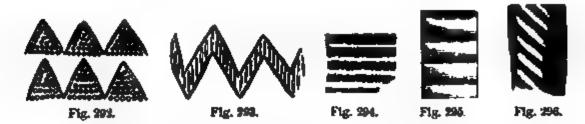


Fig. 286, from No. 141, and Fig. 287, from No. 138, show the full size, the fern-leaf or herring-bone ornament, the latter having also an engraved line at top. Figure 288, shows the elliptical form of punched decoration, and Figure 289 represents it, as well as the circular ornament, both exhibited on No. 606. Figure 290 illustrates that description of decoration where the dots are arranged in a definite shape, as in the double looped line of the beautiful green celt, No. 607, in Rail-case K. The small final cut, Fig. 291, illustrates the combination of the engraved line with the circular dotted ornament on each side of it, from a portion of the decoration on No. 621. Fig. 292 shows the ornamentation on No. 620, where three rows of triangular punched indentations, surrounded by engraved lines, occupy the front of each side.

Figure 293, shows a portion of the lightning-shaped ornament on No. 625, in Rail-case **x**, and of which that on Fig. 297 is another specimen. The three following cuts, Figs. 294, 295, and 296, drawn the natural size, exhibit forms



of grooved and roped cast ornament, to be seen on the side of No. 616, and the edges of Nos. 143, and 132. Another description of decoration was achieved by hammering the narrow edge of the celt into a series of lozenge-shaped indentations, as shown on Nos. 72 and 608, page 365.

In the annexed engravings may be seen the relative position which the ornamentation most usually occupies, as well as the general form of the decoration, the details of which have been represented, the natural size, in the foregoing illustrations.



Fig. 297

Fig. 298.

Flg. 299

Fig. 500

Fig. 297, from No. 132, on Tray G, presents the same description of ornament as Fig. 293 from another specimen in Rail-case K. Fig. 298, from No. 124 on Tray G, presents a combination of cast and engraved ornament, having transverse raised ridges below the stop, like some of the markings

on the upright stones of the passage entering New Grange, the summits of these ridges have been tooled with the usual fern-mark, as shown in the illustration. Fig. 299, from the gold-coloured cleaned celt, No. 627, in Rail-case E, presents a different form of engraving on each side. This is not an uncommon occurrence with the engraved celts; but although the pattern may differ slightly on each face, the style of work-manship and general character of the ornament remains the same. Figure 300, from No. 142, Tray G, shows a form of herring-bone ornament, like that the natural size in Fig. 287.



Fig. 301. Fig. 302. Fig. 308. Fig. 304.

Fig. 306.

Of the same class is Fig. 301, from No. 141. Fig. 302, from No. 140, resembles No. 627, already described, and figured.

The three next illustrations are good specimens of the forms of cast ornament on three descriptions of celts;—the simple long and narrow, having slight flanges and a lunette edge, with recurved points, as shown by Fig. 303, from No. 169; the broad-winged celt without a loop, Fig. 304, from No. 204, Tray I, which shows both the side and front decoration; and Fig. 305, from No. 346, on Tray II, a narrow looped side-socketed palstave, with a bow-and-arrow ornament below the stop, common to the great majority of decorated celts of this variety. The dimensions and other circumstances relating to the different specimens from which the foregoing illustrations have been taken, will be found in the details of the different Trays and Rail-cases in which they are placed.

The ornamentation upon the socketed celts has been already referred to at page 384, and illustrated by Figs. 282 and

283; and, as previously stated, it is always cast, and in no instance has a tooled ornament been observed upon a celt of this description. Nos. 558, 562 to 566, and 569, Tray 3, show the form of raised line, ending either in a circle or a series of small elevated knobs which specially characterize that implement.

Occasionally the insertions of the loop spread out in an ornamental fashion for a short way over the sides of the socket, and in No. 379, on Tray O, the profile view of which is shown in the accompanying woodcut, may be observed a number of raised lines like cast-marks, but presenting too great regularity to suppose such to be the case.



Fig. 806

Moulds.—The celts were made in three kinds of moulds, viz.:—Of stone; of sand or clay, in the same manner as modern castings; and in those of metal. The ancient stone celt moulds which have come to light are of two kinds,—the single, consisting of an indentation cut on the side of a block of stone, and without a counterpart; and the double, formed of two portions fitted together, and usually employed for casting celts of the palstave variety, while the former were chiefly employed for making the simple flat axe-shaped variety. The Academy possesses specimens of both these kinds of celt moulds, and two of them are represented and described at

page 91: see Figs. 72 and 73. Another double celt mould has been recently purchased by the Academy; it is of the same description as No.84, already referred to at page 91. There is also one in the Museum of Trinity College: and others are in

Fig. 207.

private Collections. The accompanying cut is drawn from a plaster cast, the original of which was found at Ballynahinch, county of Down, and now in the Museum at Belfast. It con-

tains moulds for four celts (see Archæological Journal, vol. iv. p. 327), the largest of which is 6 inches long by 4½ broad.

The second method was in temporary moulds of clay, sand, or marl, to which, in the case of socketed celts, a core must have been adjusted; but no vestige of such a mode of working could have come down to the present time. Models in wood or clay must have been made for these sand moulds. It is, however, remarkable that of the 686 celts in our Collection, no two appear to have been cast in the same mould; there are no exact duplicates.

The third method of casting celts was in a bronze mould, of which there are six specimens in the British Museum: that figured below, one-third the natural size, was found in England, and described by Borlace and Lort in the Archæologia, vol. v.; but they supposed it to have been a celt-case. Vallancey, with all his faults, had a clear perception of what these so-called metal "celt-cases" were, and says:—"I cannot conceive why these gentlemen hesitate to call them moulds; as a certain proof that they were manufactured in Ireland, where the Romans came not either as friends or foes, the moulds are found in our bogs; they are of brass also, mixed with a greater quantity of iron, or in some manner tempered much harder than the instruments."—"Collectanea," vol. iv., p. 59. He also

figures a bronze mould. Mr. Du Noyer has also in his paper, already referred to, shown that it was a true celt-mould, and explained the way in which metal could be cast from metal, by greasing or even coating the interior with lamp-black. Both these cuts represent the inner and outer faces of the same side; and the raised ornamental loops on the latter

faces of the same side; and the raised ornamental loops on the latter Fig. 208. Fig. 209.

are believed to have been intended for securing the tying when the moulds were joined preparatory to casting. As already explained at page 383, and also in the detailed descrip-

tion of Trays o and P, two or more cores, possibly of wood, were employed in casting socketed celts.

In colour the celts afford, in their present condition, but little variety: the copper ones are of a light brown, and, when perfect, are smooth and uniform on the surface. Besides their peculiarity of form, they can be easily distinguished from the æruginous green hue of the bronze. Most of the perfect bronze celts have this tint in a more or less degree, according to their amount of preservation, but some more than others: for example, those beautiful specimens, Nos. 607 and 608 in Rail-case K. This beautiful dark green, smooth, and polished surface is produced by artificial malachite or carbonate of copper, into which the external lamina of the surface has, in process of centuries, been converted; and which, having once formed, serves to prevent oxidation, and admits of a high polish.† Many specimens, especially of the socketed variety, are covered with a brown coating of considerable thickness, and so complete as to obscure all traces of the original surface of the bronze; this, upon analysis, is proved to be chiefly iron, and was probably deposited on the surface of the implement while lying for a length of years in peat, which is frequently much impregnated with ochre or bog iron. In some instances,—for example, No. 153, on Tray E, the brown ochrey crust has been deposited like a varnish on the surface of the previously formed carbonate of copper.

- \* Also see the "Archæology and Prehistoric Annals of Scotland," pp. 222 to 225, where several authorities bearing on the subject are quoted.
- † M. Alphonse Gages, Curator of the Industrial Museum, has examined several of these green celts, and proved the existence of artificial malachite in each.
- ‡ No. 455, on Tray Q, has four Irish letters rudely graven on one side, where it is thickly coated with brown iron incrustation, which can easily be cut with a knife, and as these letters must have been cut after the article had, by lying for ages in bog, acquired this deposit, it shows that they are of modern date compared with the age of the weapon. Professor W. Barker first informed me that this deposit was iron. A similar celt, No. 665, in Rail-case K, covered with a like natural deposit, has been carefully analyzed by M. Gages, and found to present the following composition:—Traces of organic matter; silica and alumina; hydrous oxide of iron, or brown iron ore; oxide of copper.

Several of the best preserved and most highly decorated celts in the Collection are covered with a patina, or thin layer, or what would appear at first sight to be a lacquer or varnish, like that applied over modern brass, to protect it from the oxidizing effects of the atmosphere. It would be interesting to find that our ancient metallurgists adopted means for defending the surface from oxidation.

In order to show the true colour of the metal, such as it must have appeared when the instruments were new, several of them have been cleaned, and these generally exhibit the finest gold colour, the hue probably differing slightly according to the amount of tin, lead, or sulphur in their composition.

From the great number, variety, and general distribution of these articles, Ireland may be said to be, par excellence, the country of the metal celt, as Scandinavia is of that of flint and stone. We know of upwards of two thousand metal celts now in this country; and the British Museum, as well as many other collections in England and Scotland, is enriched with Irish specimens. Like its predecessor in stone, the metal celt had a very wide distribution, and has been found in every country in Europe, from the River Tiber to the Malar Lake, but differing slightly in shape and ornamentation from those found in the British Isles.

In the adjoining cut is figured the remarkable and unique bronze celt, and referred to at page 367, cast apparently in a mould formed upon a stone implement of the same class of weapon.† Among the antiquities procured with the Dawson Collection is one side of a bronze

On a celt which I submitted to Dr. Aldridge some years ago, he found the patina or varnish to be of a vegetable nature, resembling a gum resin. This organic matter may, however, have been derived from the locality where the article lay.

<sup>†</sup> The Author is indebted to Herr Olfers, Director of the Royal Museum at Berlin, for the beautiful cast of this celt, now in the Academy's Collection; and also to Professor Magnus for his great civility in forwarding it in time for publication here.

mould, 4½ inches long and 3½ wide, and here represented onefourth the natural size, Fig. 311. By Figure 312 is shown

in profile a plaster cast from this mould. Although shorter it belongs to the same class of object as the Etruscan celt figured above. Such pellets, formed of hard clay or brick, may have been used as offensive weapons, and projected either from

and projected either from Fig. 311. Fig. 312.
the sling or some other engine, of which we have at present

no record. (See Nos. 2 and 3 in Rail-case L.)

The following is a detailed catalogue of all the bronze celts in the Museum:—

## SOUTHERN GALLERY .- BRONZE I.

THIRD COMPARTMENT, END-CASE. SHELF I., Tray A., contains twenty-six flat, rude, Copper Celts, numbered from 1 to 26.—No. 1, a plain celt of red copper, figured and described at p. 363. No. 2, a plain cuneiform celt, much corroded, 4 inches long. No. 3, a cuneiform celt of the same variety as No. 10, figured and described at p. 363, and which the great bulk of the celts on this Tray resembles; it is 3f inches long by 2f wide; it was found in the River Bann, at the Cutts, near Coleraine, and was .- Presented by the Board of Works. No. 4, a small, rude celt, from which the mould markings have never been removed; it is 3 inches long, 1 wide in the broadest part, and is marked "Killala, county of Mayo." No. 5, a triangular celt, narrower at the small end than any other specimen in the Museum, 42 by 22 across the broadest edge. No. 6, rude and imperfect, 3 by 23. No. 7, imperfect at small end, 34 by 2. No. 8, a very good specimen, in excellent preservation, and the most perfect of the specially-formed copper celts; very sharp at both extremities, bearing marks of sharpening on lower cutting face; 41 by 3. No. 9, of the same variety, but proportionally longer; corroded, 41 by 22. No. 10, a very perfect specimen, and

typical of its class, of red metal, cleaned, figured, and described at p. 363. No. 11, a very perfect specimen of the same variety, but broader in the cutting face, 5½ by 3½; it has become green on the surface, and probably contains some tin.—Deposited by the Royal Dublin Society, and marked No. 4. No. 12, one of the largest of the copper celts, round in the cutting face, 6½ by 4. No. 13 is of the same variety, cleaned,  $6\frac{1}{4}$  by  $3\frac{3}{4}$ ; it shows the bad casting and want of closeness in the metal. No. 14, ditto, 6 by 3\frac{3}{4}.\top\_Deposited by the Royal Dublin Society. No. 15, a fine specimen, in good preservation, of same variety as No. 8; it is 5 by 3\frac{3}{4}.\top\_Deposited by the Royal Dublin Society. No. 16, a small, imperfect celt,  $4\frac{1}{2}$  by  $3\frac{1}{4}$ , marked 395, a portion was removed at upper end for analysis by Mr. Mallet (see No. 2, in Transactions, vol. xxii., p. 322). No. 17, a very perfect specimen of the broad variety, like No. 8, slightly corroded on surface,  $4\frac{1}{4}$  by  $3\frac{1}{4}$ . No. 18, simple, wedge-shaped, rude, like a stone celt, slightly corroded, 42 long by 22 on cutting face, and 2 inches at narrow end. No. 19, thick, short, lunetteedged, imperfect at small end, marked on surface by mould,  $4\frac{1}{8}$  by  $3\frac{1}{4}$ . —Presented by the Board of Works. No. 20, a smooth, and tolerably good specimen,  $4\frac{8}{4}$  by  $3\frac{1}{4}$ ; unsymmetrical, like 25,—for, as placed upon the Tray, the upper edge is longer than the lower.—Presented by R. M. Carnegie, Esq., in 1852 (see Proceedings, vol. v., p. 295). No. 21, perfect, small, slightly corroded, thick like the generality of copper celts, which are thicker than those of bronze,  $3\frac{1}{2}$  by  $2\frac{3}{2}$ , (from Major Sirr's Collection). No. 22, a good specimen, slightly imperfect on cutting edge, thick, 43 by 23. No. 23, perfect and in good preservation; surface marked by mould, 4 by 2\frac{3}{4}.—Presented by the Executors of Leslie Ogilby, Esq. No. 24, a good specimen, well preserved, thin and flat, 4 by 2\frac{3}{4}. No. 25, very rude and much corroded, unsymmetrical like No. 20, 4½ by 2¾. No. 26, perfect and in good preservation, with narrow upper end, 4 by 3.

For the remainder of the copper celts, see description of Railcase E, described at p. 431.

SHELF I., Tray B, contains eleven Bronze Celts of the largest size, plain and axe-shaped; numbered from No. 27 to 37.—No. 27 is the largest specimen in the Collection, figured and described at p. 364; in fine preservation, except a few small gaps in the hatchet face, and a small, circular hole, caused by a flaw in the metal on the side at

the broad end; the cutting edge bears marks of sharpening. It is Iths of an inch thick, and very flat on the surface. No. 28, of the same class, but smaller, and proportionably shorter; is slightly imperfect at upper extremity, where it spreads a little outwards on each side, 6 inches long, by 5 wide across cutting edge, found at Keelogue Ford, between the counties of Galway and Tipperary. -Presented by the Shannon Commissioners. No. 29, a very fine specimen, and in tolerably good preservation; of the true hatchet shape; some slight remains of raised ridges appear on the surface; side edge angular; a little more than 9 inches long, by 62 broad across the blade, and 12 at the narrow end. No. 30, a good specimen, thin, flat, the upper edge somewhat longer than the lower, thus resembling with its neighbour, No. 31, some of the iron axes of later times 73 by 51. No. 31, a large specimen, unsymmetrical, slightly corroded on surface,  $7\frac{3}{4}$  by  $6\frac{1}{3}$ . No. 32, tolerably perfect in shape, but corroded on surface,  $6\frac{3}{5}$  by  $4\frac{3}{5}$ . No. 33, a very perfect specimen, and in good preservation, rounded at small end,  $6\frac{1}{5}$  by  $4\frac{1}{5}$ , (from the Dawson Collection). No. 34, a small but perfect specimen of this variety, and resembling the former in shape, 6 by 4\frac{3}{5}. No. 35, a very remarkable specimen, although imperfect, and not in good preservation; it has been decorated with a double dotted line, like that represented by Fig. 290, page 389; it is also slightly unsymmetrical,  $5\frac{7}{8}$  by  $4\frac{7}{8}$ . No. 36, a fine specimen in good preservation, 6 by 4\frac{3}{4}. No. 37, a very fine specimen, and in admirable preservation, the metal resembling in colour the Dowris bronze; 7\frac{1}{8} by 5½; found at Cornacarrow, in the Shannon workings, and— Presented by the Shannon Commissioners.

SHELF I., Tray C, contains nineteen bronze celts, axe-shaped plain, large and small; numbered from 38 to 56. No. 38, a good typical specimen, and in fine preservation,  $5\frac{1}{2}$  inches long by  $4\frac{1}{4}$  wide. No. 39, narrow at small end, worn at both extremities,  $4\frac{1}{2}$  by  $3\frac{1}{4}$ .—

Presented by Lord Farnham. No. 40, a small but perfect specimen,  $3\frac{3}{4}$  by  $2\frac{3}{4}$ . No. 41, a very rude specimen, apparently cast in one of the early stone moulds, flat, thin, 4 by  $2\frac{1}{4}$ , at broad end, and  $1\frac{1}{2}$  at small extremity.—Deposit Royal Dublin Society. No. 42, a smaller specimen of this variety, a portion removed at upper end,  $2\frac{3}{4}$  by  $2\frac{1}{4}$ , marked "Tipperary," (from the Sirr Collection). No. 43, of a peculiar form, like Nos. 144 and 145, on Tray G, the latter figured

at p. 365; edges sharp; sides rounded off; a portion of the small end has been cleaned to show the colour of the bronze, it is 4 inches long by 3½ broad. No. 44, a very fine specimen, forming part of the deposit of the Royal Dublin Society; an elevated marginal ridge runs along the sides. This is a rare peculiarity. A portion of the small extremity has, however, been removed; it now measures 6 long by  $5\frac{1}{8}$  across the width of the blade. No. 45, a small, rude, imperfect specimen, 3 by  $2\frac{1}{4}$ ; of the same character as No. 41. No. 46, rude, flat, thin, triangular, corroded, the cutting edge rounding off into the sides, 4\frac{3}{4} by 3\frac{1}{4}. No. 47, much corroded, rude in shape rather circular in cutting face,  $5\frac{1}{2}$  by  $3\frac{1}{4}$ , "found, in the year 1840, in the bed of the Carrhen River, barony of Iveragh, county of Kerry." This, together with Nos. 49, 53, and 55, were—Presented by Maurice O' Connell, M. P. (See Proceedings, vol. iv., p. 166). oxidation on these bronzes shows the effect of that process when such articles are exposed to the action of water. No. 48, slightly imperfect at top, thin, flat, with round edges, 4½ by 4. long, much corroded, imperfect at top, 6 by 33; found in the Carrhen river with No. 47. No. 50, a good specimen, in fine preservation, of bright yellow bronze, triangular, 5 by 3\frac{3}{4}. No. 51, imperfect at small extremity, surface not in good preservation, of a coppery hue,  $5\frac{1}{2}$  by  $4\frac{3}{4}$ . No. 52, long, slightly imperfect,  $5\frac{1}{2}$  by  $3\frac{1}{2}$ No. 53, long, much corroded from lying together with Nos. 47, 49, and 55, in the Carrhen River;  $6\frac{3}{4}$  by  $4\frac{1}{4}$ . No. 54, a good specimen of the axe-shaped celt, slightly imperfect, corroded,  $6\frac{1}{4}$  by 5.—Presented by the Executors of Leslie Ogilby, Esq. (see old Museum register, MS., vol. i., p. 226). No. 55, an axe-shaped celt, thick, corroded from lying in the water,  $7\frac{1}{4}$  by  $5\frac{1}{4}$ . No. 56, a large specimen of axe-shaped celt, thin, and much indented on surface as if from imperfect casting, 7 by 51.

SHELF I., Tray D, contains sixteen long celts, some ornamented, —numbered from 57 to 72. The long variety described at page 365 commences on this Tray, on which there are several very fine specimens. No. 57, the largest long, narrow celt in the Collection, is slightly imperfect on the cutting edge, has a rudimental stop ridge, side edges slightly elevated above the flat, as if by hammering, by which process also a rude form of decoration has been produced on them like No. 72, Fig. 248, p. 365. The small extremity on this,

and all the other celts of the same variety, is sharp and slightly rounded, as if for use when passed through the handle. inches long, 4½ across the face of the blade, 1½ at the small extremity, and \(\frac{1}{2}\) thick.\(\text{\$=\$Presented by \$W\$. \$R\$. Wilde, \$Esq\$. (see Proceedings, vol. iii., p. 539). No. 58 is slightly ornamented with fern-leaf markings towards the small extremity, and radiating grooves near the blade, 7½ by 4½.—Presented by W. R. Wilde, Esq. No. 59, a perfect specimen, in good preservation, plain, flat, and thin, 7½ by 4½. No. 60, plain, thin, flat, slightly unsymmetrical, 7½ by 4. No. 61, perfect, narrow, with rudimental stop-ridge, and remains of crust,  $6\frac{3}{8}$  by  $3\frac{1}{4}$ , (from Sirr Collection). No. 62, a fine specimen of the long variety, coated with a brownish-red crust, has a grooved decoration on the flat surface, like No. 58; the indentations radiating from the centre towards the cutting edge, 81 by No 63, a perfect specimen; cutting edge rather straight; 7 by No. 64, of bright yellow bronze, imperfect at extremities, rudimental stop, side edges elevated; presents the remains of two forms of ornamentation; below the stop are a series of linear indentations, apparently produced by a hammer or punch, and at the small extremity may be seen clusters of small circles like the domino decorations observed on bone articles; 7 by 31. No. 65, rude, plain, flat, bearing some marks of hammered ornament, covered with patina about the centre, marked "Sligo," 65 by 3. No. 66, in tolerable preservation, of bright yellow bronze; some traces of fern-leaf ornamentation on side, not unlike that on one of the stones at New Grange, 7½ by 3½.—Presented by the Shannon Commissioners. No 67, a perfect specimen, apparently ground on the hatchet face, and covered all over the lower two-thirds of the side with hammered indentations,  $6\frac{1}{4}$  by  $3\frac{2}{5}$ . No. 68, very rude, corroded, round in the hatchet face like No. 46, on Tray C, and narrow in the shaft, 6½ by 25ths. No. 69, perfect, and ornamented on the sides and edges, the former with six ribs, each half an inch apart, the latter with the same form of ornament placed obliquely, so as to give it a roped appearance; has some remains of patina at the sides; 6 by 3 No. 70, long, narrow, slightly imperfect at small extremity, much hammered on the flat of the edges, 7 by  $3\frac{1}{8}$ . No. 71, broad, tolerably perfect,  $6\frac{1}{2}$  by  $4\frac{1}{8}$ . No. 72, a very beautiful long celt, figured and described at page 365, ornamented on both sides

and edges; cleaned to show the beautiful golden lustre of the bronze.

SHELF I., Tray E, contains eighteen celts, chiefly of the long, narrow variety; numbered from 73 to 90. No. 73, a small, flat celt, rather thick in the middle, 41 inches long by 22 wide in the blade; in fine preservation, a slight hammered ornament on the edges. Found at Newington, county of Kildare, and—Presented by James Forbes, Esq. No. 74, a good specimen of this variety, of yellow bronze, rather straight in the cutting edge, and round at the top,  $5\frac{1}{4}$  by 27; procured, with a number of others, from Mr. Murray, of Mullingar. No. 75, of bright yellow bronze, slightly imperfect at small extremity; a rude hammered ornament, radiating toward the cutting edge, spreads over the side; it is also irregularly hammered above the edge; 5 by  $3\frac{1}{4}$ . No. 76, rude, flat, perfect, presenting all the appearance of the copper type, both in shape, surface, and colour, the admixture of tin being probably very slight,  $5\frac{3}{8}$  by  $3\frac{1}{4}$ . No. 77, plain, flat, rather broad, rude in shape but in perfect preservation;  $4\frac{5}{5}$  by 3. No. 78, long, narrow, corroded; imperfect at top, where a portion has been cut off; 5\frac{3}{4} by 3\frac{3}{5}. No. 79, long, narrow, round-faced,  $5\frac{3}{4}$  by  $2\frac{1}{5}$ . No. 80, a perfect specimen of the long, narrow variety; 6 by 3\frac{1}{8}.—Presented by the executors of Leslie Ogilby, Esq. No. 81, a perfect specimen, plain, rather broad, like those on Trays **B** and **C**, slightly corroded,  $5\frac{1}{4}$  by  $3\frac{3}{4}$ . No. 82, long and narrow, imperfect at both extremities, dark coloured; a punched or hammered ornamentation occupies the middle of the sides and the edges, somewhat like No. 72;  $6\frac{1}{4}$  by  $2\frac{3}{4}$ . No. 83, a perfect specimen of the long, narrow celt; of bright yellow bronze, half an inch thick in the middle, a punched or hammered ornament occupies the side, and spreads out into a fork towards the cutting edge, leaving a large interspace free from decoration; several of the elliptical decorations which produce this ornament are half an inch long; 5\frac{1}{2}\$ by 3\frac{1}{2}\$. A rare peculiarity in this celt consists of what is technically termed a wind in the cutting edge, somewhat like that observed in most of the stone celts. No. 84, a good large specimen of the long, narrow celt, and, except some gaps in the cutting edge, in fine preservation; a slight rudimentary stop, immediately behind which the sides are compressed, and afterwards spread out into the usual thin, curved extremity; pleasingly ornamented on the side with greater regularity than that seen on those previously described, except No. 35 on Tray B; the ornamentation was effected with the punch or hammer, but with great regularity both in design and execution, and is worthy of illustration,  $7\frac{3}{2}$  by  $3\frac{1}{4}$ .—Presented by the executors of Leslie Ogilby, Esq. No. 85, a plain celt, rather broad in comparison with the rest of this variety; 6 by  $3\frac{1}{4}$ . No. 86, long and narrow, imperfect at cutting edge;  $7\frac{1}{2}$  by  $3\frac{1}{8}$ . No. 87, long and narrow, thin, rude, unsymmetrical, slightly imperfect from corrosion;  $6\frac{5}{8}$  by  $3\frac{1}{4}$ . No. 88, long and narrow, very much corroded; 7 by  $3\frac{5}{8}$ . No. 89, a very perfect specimen of the long narrow celt;  $7\frac{1}{2}$  by  $3\frac{5}{4}$ ; found at Galway, and—Presented by R. A. Gray, C. E. No. 90, a long, narrow celt, thick and heavy, sharp at the small extremity;  $7\frac{1}{2}$  by  $4\frac{1}{4}$ .

SHELF I., Tray F, contains thirty small, rude, slender, celts, chiefly of the long, narrow variety,—numbered from 91 to 120. No. 91, small, corroded, but with part of patina still remaining, 41 inches long, by 2½ broad. No. 92, somewhat broader than the generality of this variety, brassy in appearance, grooved longitudinally on the surface, apparently in the mould, the only instance of that kind of decoration in the Collection,  $4\frac{3}{4}$  inches by  $2\frac{1}{3}$ . No. 93, long and narrow, partly imperfect at top, has a rise in the shaft like a rudimentary stop; slightly unsymmetrical the upper edge being longer than the lower; 5\frac{3}{8} by 3, (from Dawson Collection). No. 94, long and narrow, tolerably perfect, and in good preservation, has an elevated ridge like the foregoing,  $5\frac{1}{5}$  inches by  $2\frac{5}{5}$ , (Dawson). No. 95, long and narrow, broad in the blade, hammered at the small extremity, 5½ by 3, (Dawson). No. 96, a rude specimen, badly cast, with a flaw on the surface,  $5\frac{5}{8}$  by 3, (Dawson). No. 97, a perfect specimen, with a portion of the lacquer or patina remaining,  $5\frac{3}{4}$  inches by 3, (from the Sirr Collection). No. 98, perfect, long and narrow, thick in the middle of the shaft, slightly decorated with an irregular punched or hammered ornament all over the surface from an inch above the cutting edge, 5% inches by 3; it appears to have been slightly bent in the casting. No. 99, rude, plain, and slightly corroded, 5½ inches by 2½, (Sirr). No. 100, a very rude and much corroded specimen, 5\frac{3}{4} inches by 2\frac{3}{4}.\top Presented by Lord Farnham. Nos. from 101 to 110, in the middle row of this Tray, are specimens of the longest variety of the long, narrow celt;

No. 101, in good preservation, small, thin, flat, 3 inches by 11; this and most of the other small specimens of the same class were, probably, stuck into, but not passed through, the knobbed end of a wooden handle, like the African specimen, Fig. 256, p. 370. Found in the bed of the Scariff River, county of Clare.—Presented by the Shannon No. 102, slightly imperfect, long and narrow, the Commissioners. sides being nearly parallel, 4 inches by 11. No. 103, of the same description, but more triangular, very thin, slightly corroded, cracked in the centre, 3\frac{3}{4} inches by 1\frac{3}{6}. No. 104, ditto, but rather broader in the blade, 31 inches by 12. No. 105, long, imperfect, a slight stop ridge near the centre, 37 inches by 11. No. 106, thin and narrow, 3\frac{3}{4} inches by 1\frac{3}{4}. No. 107, of very yellow bronze, round at the cutting edge, 3\frac{3}{8} inches by 1\frac{7}{8}. No. 108, short, broad, flat, perfect, 3\frac{3}{8} inches by 2\frac{1}{8}. No. 109, a small, perfect, long and narrow, thicker than usual, 41 inches by 21. No. 110, perfect, rather broad in the shaft and small end, 4½ inches by 2; found in gravel, four feet under the surface of the bed of the Clare River, townland of Lehid, barony of Dunmore, county of Galway.—Presented by the Board of Works. The remaining specimens in the third row, from No. 111 to 120, are of the rudest description, some of them badly cast, and several much corroded. No. 111, long and narrow, corroded, 4 inches by  $1\frac{7}{8}$ . No. 112, very narrow in the shaft compared with its length, rather in imperfect preservation, contracted where the stop sometimes exists; 41 inches by 15 wide in the cutting edge, and 3 across the narrowest part of the shaft, (Dawson). No. 113, thin, flat, somewhat triangular, rather straight in the cutting edge, corroded, 4½ inches by 2\frac{3}{2}. No. 114, thin, rude, much corroded,  $4\frac{1}{2}$  inches by  $2\frac{1}{4}$ .—Presented by Lord Farnham. No. 115, ditto, very rude, and greatly corroded, as if from long immersion in water, 5 inches by 21. No. 116, imperfect and in bad preservation, 4\frac{3}{5} inches by 2\frac{1}{5}. No. 117, long and narrow, round in the cutting edge, irregular on surface, a slight rudimental stop ridge; 5 inches by 2. No. 118, long and narrow, coppery on the surface, unsymmetrical, has a rude hammered ornament on the middle of flat surface,  $5\frac{1}{4}$  inches by  $2\frac{3}{8}$ . No. 119, imperfect, slightly bent, the thinnest specimen for its size in the Collection; covered with verdigris; the cutting face nearly straight, the narrow end oblique, 5 } inches by 3; this is one of the rudest specimens in the Museum,

except those on Tray A, it is either of great age or was made by a bad workman, (Sirr). No. 120, coppery, slightly corroded,  $5\frac{1}{5}$  inches by  $3\frac{1}{8}$ .

SHELF I., Tray G, contains twenty-five celts, long and narrow, broad-edged, several ornamented; numbered from 121 to 145. Upon this Tray we first observe the lunette and saddler's knifeshaped face, described at page 375; the ornamentation also becomes more distinct, regular, and graceful. No. 121 a very small, rude, badly cast specimen of the thin, narrow, celt, but with a broad cutting face projecting considerably beyond the line of the shaft, the hatchet edge is quite blunt and round, apparently so in the original casting; only 25 inches long, by 18 across the blade. long and narrow, sharp at the angles, slight rudimental stop, below which there is a broad, rudely hammered ornament, 4½ inches by 1¾. No. 123, in imperfect preservation, long, narrow, slightly winged, with a rudimentary stop, saddler's knife-shape in the cutting edge;  $4\frac{1}{2}$  inches by  $1\frac{7}{8}$ , and  $\frac{1}{2}$  in depth across the centre of the wing; this is the first specimen, according to the arrangement of the Collection, in which we meet these three peculiarities combined. No. 124, a perfect specimen of the lunette-edged celt, in fine preservation, the flanges slightly developed; of a very dark green colour, either owing to the skin which has formed on it, or from the original lacquer; 41/2 inches by 23; it is beautifully decorated on the flat surface by four ridges, raised in the casting, the three uppermost of which are tooled with the fern-leaf marking; the edges are also decorated with a rope pattern (see Fig. 298, p. 390). No. 125, small, very rude, narrow, coppery, semicircular in the cutting face, 3\frac{3}{4} inches by 1\frac{3}{8}. No. 126, ditto, very rude, unsymmetrical, but with the side edges partially raised into flanges,  $3\frac{1}{8}$  inches by  $1\frac{1}{4}$ . No. 127, small,  $4\frac{5}{8}$  by 21.—Presented by R. A. Gray, C. E. No. 128, remarkably short, recurved lunette-shaped, very thick, flanged; the only specimen of the kind in the Collection,  $3\frac{1}{4}$  inches by  $2\frac{3}{4}$  (see Fig. 264, p. 378), it was found in the cuttings at Keelogue ford, in 1843, and—Presented by the Shannon Commissioners. No. 129, small, rudimental stop, slightly grooved on surface by elevation of the flange-like edges, 27 inches No. 130, ungraceful in form, thick,  $3\frac{5}{8}$  inches by  $1\frac{1}{2}$ . No. 131, brassy, in good preservation, but partaking more of the simple, flat, broad, hatchet-faced variety, than any of the other examples on

this Tray,  $5\frac{1}{2}$  inches by  $3\frac{1}{4}$ .—Presented by R. A. Gray, C. E. 132, long, narrow, lunette-edged, with recurved extremities, rudimental stop and flange, decorated upon both flat surface and side edges, 5g inches by 2g (see Fig. 297, p. 390). No. 133, fractured in centre, punched ornament, slightly elevated edges, 5 inches by 35. No. 134, in fair preservation, long and narrow, an irregular hammered ornament on the lower and middle of flat surface, 5% inches by 3. No. 135, a good specimen of the long, narrow celt, slightly imperfect at small end, coated with a green patina, highly decorated, 7 inches by  $3\frac{1}{8}$  (see Fig. 250, p. 365). No. 136, a good example of the saddler's knife-blade, rudimental curved stop, slight flanges,  $6\frac{1}{4}$  inches by  $2\frac{3}{4}$ , and  $\frac{1}{16}$  thick across the side of flange. No. 137, long and narrow, slightly corroded, round cutting edge, rudimental flange and stop,  $6\frac{3}{4}$  inches by  $3\frac{1}{4}$ . No. 138, a fine specimen, in perfect preservation, delicately tooled with herring-bone marking all over surface of middle third; this specimen is well worthy of illustrations;  $6\frac{1}{8}$  inches by  $2\frac{5}{8}$ . No. 139, imperfect in the cutting edge, rudimental flange and stop now  $6\frac{1}{8}$  inches by  $2\frac{3}{4}$ . No. 140, very perfect, and in fine preservation, brassy in colour, slight stop and flange, appears to have been sharpened by grinding or whetting, decorated with a regular pattern upon the middle third of the flat, and a rope-like ornament on edge; 5 inches by 27 (see Fig. 302, p. 391). No. 141, a very fine specimen, lunette-edged, slightly corroded at small extremity, rudimental wings and stop beautifully decorated on surface, both in casting and by hand; 5% inches by 2½ (see Figs. 286 and 301). No. 142, small, in perfect preservation, covered with a brownish patina, blade semilunar, slight flanges run over rudimentary stop ridge, decorated on sides and flat surface, both in casting and by hand;  $4\frac{1}{2}$  inches by  $2\frac{1}{3}$  (see Figs. 287 and 300, pp. 389 and 390). No. 143, narrow, rude, imperfect at small extremity; here the curved stop ridge rises to level of straight flanges, rudely hammered decoration on flat and edges; 42 inches by 21. No. 144, which is slightly unsymmetrical, is 5\frac{1}{2} inches long by 3\frac{1}{2} broad at the cutting face, and 11 across the small extremity; this celt, with 145, and No. 43, on Tray G, are remarkable and rare specimens of thin, flat, broad-faced, plain celts of which No. 145, the typical specimen, has been described, at p. 365, Fig. 251. No. 145 is a long specimen of the same variety, figured and described as above.

SHELF I., Tray H, contains twenty-eight specimens of the long, narrow celts, chiefly lunette-edged, some slightly ornamented; numbered from 146 to 173. No. 146, an encrusted, plain, flat specimen of the long, narrow variety, without flanges, but having a rudimental stop; has a slightly tooled decoration on middle third; 6½ inches long by 3½ broad at cutting face. No. 147, rude, small, lunetteedged; 3½ by 2. No. 148, a fine, well-cast specimen, in good preservation, except a slight flaw at the small extremity, hatchet-faced, raised edges, slightly ornamented in the casting by elevated transverse bars;  $6\frac{3}{4}$  by  $3\frac{1}{2}$ . No. 149, plain, long, and narrow, unsymmetrical, hammered at small extremity, slightly elevated at edges opposite rudimental stop, 5\frac{3}{4} by 2\frac{3}{4}. The number of celts in which the small extremity has been blunted and hammered, without the cutting face being injured, leads one to believe that they were used like mortice chisels for cutting wood. No. 150, a good specimen, of bright yellow bronze, somewhat triangular, flat on the surface, and rudely decorated by hammered fan-tailed ornament radiating towards the blade, edge very sharp;  $5\frac{1}{5}$  by  $3\frac{1}{5}$ ; found in bed of the river at Ballyheedy Bridge, below Ballinamore, townland of Ardrum, parish of Oughteragh, county of Leitrim, and Presented by the Board of Works. No. 151, a good specimen, in fair preservation, flat, long and narrow, plain;  $5\frac{1}{8}$  by  $2\frac{1}{2}$ . No. 152, small, lunette-edged, 2½ by 1¾. No. 153, long and narrow, imperfect in blade, slightly elevated at side edges, partially covered with remains of brown patina; 5½ by 2½. No. 154, lunette-edged, rudimental flange and stop, slightly corroded, decorated with slight cast cross ridges; 5\frac{3}{2} by 2\frac{1}{2}. No. 155, rude in shape, narrow, slightly decorated below rudimental stop, and also on edges;  $4\frac{3}{5}$  by 2. No. 156, rude, plain, flat;  $4\frac{1}{2}$  by 2. No. 157, ditto;  $4\frac{1}{4}$  by  $2\frac{1}{8}$ .—Presented by Lord Farnham. No. 158, ditto, imperfect from hammering on small extremity, blunt at cutting edge, slightly decorated with punched or hammered indentations on middle of flat surface; 4\frac{3}{4} by 1\frac{3}{8}. No. 159, plain, flat, of a bright yellow colour, slightly decorated below rudimental stop with interrupted punched lines, 43 by 23; resembles No. 150.—Presented by Lord Farnham. No. 160, rude, corroded, saddler's knife-shaped blade, slight flanges and stop ridges;  $4\frac{1}{8}$  by  $2\frac{1}{8}$ . No. 161, plain, flat, in shape and colour resembling No. 150, indented on side apparently from defect in cast-

ing; traces of hammered decoration; blunt on edge; 47 by 25. No. 162, rude, short, broad side edges raised into flanges, which turn over the small extremity, round in the cutting face; 41 by 2½. No. 163, a good specimen, lunette-edged, with slight, sharp flanges; has a well-defined ornament on upper and lower edge; 51 by 27 (Dawson). No. 164, flat, lunette-edged, remarkably unsymmetrical towards small end; about a third of the middle decorated with a punch or hammer;  $4\frac{1}{4}$  by  $2\frac{1}{5}$ . No. 165, lunette-edged; gapped in the face; slight flanges, decorated with curved cast ridges, and oblique tooled indentations; 4\frac{1}{2} by 2\frac{1}{2} (Dawson). No. 166, lunette-edged; appears to have been ground or sharpened, the extremities of the blades rounded off, remarkably sharp, rudimental stop and flange;  $5\frac{1}{4}$  by  $3\frac{1}{8}$ . No. 167, saddler's knife-shaped blade, slight stop and flanges;  $4\frac{7}{8}$  by  $2\frac{3}{4}$ —Presented by the executors of Leslie Ogilby, Esq. No. 168, a good specimen, covered with a dark-brown patina, lunette-edged; 4½ by 2½ (Dawson). No. 169, narrow, recurved cutting face, blunted edge, slightly corroded, and also injured by hammering, decorated in casting like Fig. 294, in the illustrations of decoration, page 390;  $4\frac{1}{8}$  by  $2\frac{1}{8}$ . No. 170, rude, narrow, long; much injured in face; rudimental stops and flanges; 51 No. 171, rude, unsymmetrical, unusual shape, long, narrow, lunette-edged, hammered at small extremity; 5 by 21/2. No. 172, small, narrow, lunette-edged, partially covered with brown patina;  $3\frac{7}{8}$  by 2. No. 173, narrow, lunette recurved edge, slight flanges;  $4\frac{1}{8}$  by  $2\frac{1}{8}$ .

SHELF I., Tray I, contains thirty-two bronze celts, chiefly of the long, narrow variety, with wings, rudimental stops, lunette and fan-tail edges, some decorated; numbered from 174 to 205. No. 174, small, narrow, in good preservation, slight flanges, no stop;  $3\frac{7}{8}$  inches long by 2 across the width of the blade. No. 175, a very perfect specimen of the plain winged, chisel-edged celt, without a stop;  $4\frac{7}{8}$  by  $1\frac{3}{4}$ ; figured and described at p. 373. No. 176, a slightly imperfect specimen of the same variety, wings well developed, no stop;  $4\frac{1}{2}$  by  $1\frac{3}{4}$ . No. 177, lunette-edged, winged, of bright-yellow metal, thick, has a very small rudimental stop, which could scarcely have been of any use in effecting the object of that portion of the implement;  $5\frac{1}{4}$  by  $2\frac{3}{4}$ , and an inch wide across the broadest part of the wing. No. 178, very narrow, rude, slightly imperfect, with wings

and stop, sides nearly parallel;  $4\frac{1}{2}$  by  $1\frac{1}{4}$ . No. 179, chisel-edged, with wing and stop, slightly corroded, has a cast semicircular ornament below stop, and transverse ridges on the side; 5\frac{3}{4} by 2\frac{1}{2}; found in the Bog of Aghavalid, county of Cavan, and—Presented by Lord Farnham. No. 180, thick, massive, much worn and battered, as if it had been long used as a tool; blunted on all the edges; of bright-yellow metal;  $5\frac{1}{4}$  by  $2\frac{1}{2}$ . No 181, fan-shaped, slightly imperfect in blade, very narrow in shaft, slight flange and stop; cast ornament, consisting of a semicircular ridge above cutting edge, and rope on side; 5 by 2½. No. 182, chisel-edged, with stop and wings, the latter much hammered on their edges; 55 by 23.—Presented by Lord Farnham. No. 183, broad, chiseledged, rudimental stop, well-developed wing, ornamented with a semicircular indentation below extremities of wings, and a grooved ridging on their sides;  $5\frac{7}{8}$  by  $2\frac{5}{8}$ . The peculiarity of this remarkable celt consists in the circumstance of the wings springing out from the line of the side, as shown in the representation alluded No. 184 resembles the former in all respects, except the decoration upon sides of wings, chisel-edged, rudimental stop; 5\frac{1}{12} by No. 185, short, rude, narrow, slight flanges and sunken, rudimental stops, slightly imperfect at both extremities;  $4\frac{1}{5}$  by  $1\frac{7}{5}$ . No. 186, a fine specimen in good preservation, lunette-edged, wings well developed, stops small, curved edge remarkably sharp; 5g by 2%; found in Keelogue ford, upon the Shannon, encrusted with a brownish substance, like some of the stone celts already referred to.—Presented by Shannon Commissioners. No. 187, broad-face, imperfect in blade, rudimental stop, wings well developed; 5\frac{1}{2} by 3\frac{1}{2}. No. 188, chisel-edged, wings well developed, no stop. This is the reverse of No. 183, for, viewed in profile, the wings sink beneath the side edges; it is 5\frac{3}{8} by 2\frac{1}{8}. No. 189, of greenish-yellow bronze, lunette-edged, with wings and stop; below the stop may be seen two lateral and one central grooved cast ornament; 53 by 21. No. 190, saddler's knife-edged, much worn, rudimental stop and flanges, remains of cast decoration still exist on blade, and in the groove below the small end may be seen traces of a punched pattern; 4½ by 2½; found in the parish of Rasharkin, county of Antrim. No. 191, small, semicircular-edged, corroded, slight flange, rudimental stop; 4½ by 2½ (Dawson). No. 192, small, perfect sad-

dler's knife-edged, with well-developed wing and stop; 35 by 21. No. 193, narrow, chisel-edged, imperfect at top, wing, and stop; now 4½ by 18.—Presented by Lord Farnham. No. 194, very short, slight flange and stop, cutting edge appears to have been ground down to its present dimensions, decorated on flat and sides, the former with a chevron, the latter with a rope ornamentation;  $3\frac{1}{2}$  by No. 195, small, lunette-edged, with recurved points, slight flanges and rudimental stop; 3\frac{3}{4} by 2\frac{1}{8}. No. 196, short, fan-shaped in blade, thick, with wings and slight stop; 4g by 2g. No. 197, in good preservation, short, thick, very much recurved in the blade, winged;  $4\frac{1}{8}$  by  $2\frac{3}{4}$ . No. 198, fan-shaped in blade, like Fig. 262., p. 373, short, thick, slight wing and stop, perfect, and in good preservation;  $4\frac{1}{4}$  by 3. No. 199, long and narrow, lunette and recurved cutting edge, flange rudimentary, but stop rising above the level of the blade, highly ornamented over a large portion of the flat surface with straight-lined grooved indentations, like Nos. 140 and 627, and on the edge by an oblique roped ornament;  $5\frac{1}{8}$  by  $2\frac{7}{8}$ . No. 200, a good specimen, fan-shaped in the blade, slightly imperfect in the edge, slight flange and stop; a hammered decoration covers all the surface of the side; 5 by 3.—Presented by executors of Leslie Ogilby, No. 201, a very fine specimen of the fan-shaped variety, worthy of illustration; slight wing, stop, and semicircular raised ornament at junction of the blade and shaft; beautifully engraved on surface below stop, and with a regular feather-like cast ornament on side, hammered at small extremity;  $4\frac{3}{4}$  by  $2\frac{7}{8}$ . No. 202, thick, massive, lunette recurved edged, full wings, and stop; external surface of former has a cast ornament, slightly hammered at small extremity; 47 by 24. No. 203, a fine specimen of the fan-shaped celt, with a narrow shaft, slight wings, small oblique stop, and curved line at junction of shaft with blade, like Fig. 262; slightly corroded on surface;  $5\frac{1}{8}$  by  $3\frac{1}{2}$ . No. 204, long, semilunar-edged, with wings and stop, cast decoration on sides, and flat surface;  $5\frac{3}{4}$  by  $3\frac{1}{8}$ ; Fig. 304, p. 371. No. 205, a good specimen, in fine preservation, of the fan-shaped variety, but differs from the others in having the stop curved, wanting the curved ridge on the blade, and in having a groove running along the side surface; 5½ by 3½.—Presented by executors of Leslie Ogilby, Esq.

SHELF I., Tray J, contains twenty-nine narrow celts, with stops

and wings; numbered from 206 to 234. No. 206, a good specimen, in fine preservation, short and fan-shaped, like Fig. 262, with a high stop; a rudely graven ornament covers the outer face of one wing; 47 inches long by 21 broad. No. 207, of same variety, but more recurved in blade, stop rises considerably above the level of the wings; slightly imperfect at small end; 4\frac{3}{5} by 2\frac{3}{5}. No. 208, rude, narrow, thick, in bad preservation, stop rudimental; 41 by 12. No. 209, very perfect, broad wings, stop, lunette-edged, it is remarkable for a beautiful cast ornament on side edges of wings, being the first specimen of the kind met with in the Collection (see Fig. 271, p 379); 5 by 2½; found at Loughran's Island, on the Lower Bann.—Presented by the Board of Works (see Proceedings, vol. v., No. 210, rude, badly cast, narrow-winged, imperfect in several places;  $5\frac{1}{4}$  by 2. No. 211, long and narrow, imperfect at top, 6 by 2½. No. 212, narrow, straight-edged, slightly injured on one wing, ornamented below stop, of yellow bronze; 57 by 28; found in bed of Shannon, at Athlone.—Presented by Shannon Com-No. 213, narrow, semicircular in blade, ornamented on missioners. both flat and side faces, the latter by a series of circular indentations, slightly hammered at top; 5 by  $2\frac{1}{4}$ ; worthy of illustration. No. 214, rude, narrow, imperfect, rudimental stop, oblique ridge on outer side of wing;  $5\frac{1}{8}$  by  $1\frac{7}{8}$ . No. 215, coppery, slightly imperfect in casting, cast ornament on flat surface;  $4\frac{7}{8}$  by  $2\frac{3}{8}$ . No. 216, narrow, imperfect, chisel-edged, with holes on thin septum between wings; 5 by 14. No. 217, rude, narrow, imperfect; coppery, with possibly a very small alloy of tin; the wings and stop merge into each other, has all the appearance of great antiquity;  $3\frac{3}{4}$  by  $1\frac{1}{2}$ .—Presented by Lord Farnham. No. 218, another specimen of the same kind, also of very red metal, slightly corroded; 4 by 1\frac{1}{2}.—Presented, with No. 219, by W. R. Wilde, Esq. (see Proceedings, vol. iii., p. 539). No. 219, ditto, rude and narrow, of yellower metal than the two former; 4½ by 1½. No. 220, rude, small, narrow, corroded; 4½ by 12. These four celts, which are all of reddish metal, would appear to be the link between the simple, copper, wedge-shaped celt, and the long, narrow, bronze variety, with stop. 221, rude, narrow, imperfect at top, lower surface on a level with stop, and presenting a slight ornamental projection; 4 by 18; from Lisgarvel, parish of Maghesa, county of Derry. No.

222, a tolerably good specimen, long in the wings, slight oblique stop, lunette-edged;  $4\frac{1}{4}$  by  $2\frac{1}{4}$ . No. 223, short, lunette-edged, with long and broad wings, slightly ornamented in casting, hammered at top;  $4\frac{5}{8}$  by  $2\frac{1}{4}$ . No. 224, imperfect, very remarkable from wings coming down to margin of cutting edge, slight narrow stop;  $4\frac{1}{4}$  by  $2\frac{1}{4}$ . No. 225, short, chisel-edged, with cast ornament on face, stop separate from wings, slightly hammered at top, outer side of wings ornate, and raised into ridges, as if for limiting the play of the tying;  $4\frac{3}{4}$  by  $2\frac{1}{4}$  (see Fig. 272, p. 379). No. 226, perfect, with recurved points to cutting edge; stop, wings and slight projection on outer sides of latter;  $5\frac{1}{2}$  by  $2\frac{5}{8}$  (Dawson). No. 227, long and narrow, with wings and stop, slightly hammered at top;  $5\frac{1}{3}$  by  $2\frac{3}{3}$ . No. 228, round edged, with high wings passing below stop; 5\frac{3}{4} by 2\frac{1}{2}. No. 229, very perfect, long, narrow, resembling No. 226 in elevation on outer edge;  $5\frac{3}{4}$  by  $2\frac{1}{4}$ . No. 230, long narrow, broad-edged, much corroded; 6 by 2\frac{3}{4}.—Presented by Lord Farnham. No. 231, large, broad, hatchet face, well developed stop, with a cast and tooled ornament below it, remains of patina on some portions, but corroded towards the edge; 7 by 3. No. 232, imperfect, chisel-edged, corroded, very broad in the groove, slight cast ornament below narrow stop;  $6\frac{1}{4}$  by  $2\frac{7}{8}$ . No. 233, perfect, long, narrow, round in cutting edge, with recurved points, long in the groove cast ornament below stop;  $6\frac{1}{2}$  by  $2\frac{1}{2}$ ; found in the bed of the river above Bunnamukagh Bridge, parish of Cloonfinlough, county of Roscommon, in 1849, and Presented by the Board of Works (see Proceedings, vol. v., App., p. 62). No. 234, short-winged, slightly imperfect, broad in the side, high stop with slight raised ornament below it, semilunar edge with recurved points;  $5\frac{3}{4}$  by  $2\frac{3}{4}$ .—Presented by the executors of Leslie Ogilby, Esq.

SHELF II., Tray **E**, contains twenty-five long and narrow celts, with stops and wings; numbered from 235 to 259. No. 235, a long palstave, with lunette and recurved cutting edge, broad in wing, decorated in casting below stop;  $6\frac{3}{8}$  inches long by 3 across the blade, and  $1\frac{3}{8}$  wide on side of wing. No. 236, perfect, broad in the face, and wide in the wing;  $6\frac{1}{2}$  by 3 in cutting edge, and  $1\frac{1}{2}$  across side of wing. In this and Nos. 235, 237, 239, and 247, there is a slight projection on the side like No. 248, Fig. 260, p. 373. No. 237, large, of same variety, decorated below stop; 7 by  $2\frac{7}{8}$ , and

1½ across wing. No. 238, hatchet-faced, imperfect in wing, narrow groove and stop; surface much affected by exposure; 67 by 27. No. 239, slightly imperfect, much battered on surface, shallow groove, curved ornament below stop; 61 by 25 (from Major Sirr's No. 240, chisel-edged, very broad in the wing; this is the first specimen in which the lower portions of the wings are made by hammering to overlap the stop and socket; 6 by  $2\frac{5}{8}$ , and  $1\frac{1}{8}$ across breadth of wing (from the Dawson collection). No. 241, straight-edged, broadest part of wing below slight shallow stop; 6 by  $2\frac{3}{8}$ . No. 242, massive, slightly imperfect in one wing, hatchet face, stop and wing well developed; 6 by 2\frac{3}{2}. No. 243, lunette edge, imperfect at small end, curved raised cast ornament below stop;  $5\frac{1}{2}$  by  $2\frac{7}{8}$  (Dawson). No. 244, narrow, chisel edged, hammered at top, high stop with slight ornament beneath it; 64 by 2\frac{1}{2} (Dawson). No. 245, hatchet-face, unsymmetrical, very narrow wings and thin septum; 6 by  $3\frac{1}{4}$ . No. 246, the most perfect and largest specimen of this variety in the Collection, chisel-edged, ornamented below stop with bow-like cast decoration, below which is a line of circular indentations;  $7\frac{1}{2}$  by 3, and  $1\frac{6}{5}$  across side of wings. No. 247, a new sub-variety of the long, narrow celt, with wings and stop running into each other, broad in the cutting edge, slightly hammered at top, mould-mark on edges;  $6\frac{1}{4}$  by  $2\frac{7}{8}$ . No. 248, the broadest winged celt in the Collection, lunette-edged, slight stop, with shallow curved ornament below, oblique raised bar on side; 55 by 23, and 12 across breadth of wing (see Fig. 250, p. 373). No. 249, narrow, small, lunette edge, wings turned into stop, like No. 247, showing one of the first indications of side socket, slightly hammered at top, mould-marks on side; 5% by 2. No. 250, short, fine close-grained metal, much hammered at top of wings, well developed cast ornament below stop; very sharp lunette edge; the moulds do not appear to have met closely, and have left a projecting ridge on side face;  $4\frac{3}{5}$  by  $2\frac{1}{5}$ . No. 251, slightly imperfect, lunette edge; 5½ by 2½ (Dawson). No. 252, rude, but with well-developed socket-pouch, where wings and stop coalesce; slight projection on one side of cast line like a rudimental loop; 43 by 21. No. 253, lunette edged, imperfect in septum, broad wings, hammered over stop; 47 by 2½. No. 254, of very red metal, rude, massive, much hammered at top, wings running down to chisel edge;  $5\frac{1}{4}$  by  $2\frac{1}{2}$ ; found in

Foulksrath, county of Kilkenny (Dawson). No. 255, chisel edge, hammered at top, wings turned in over stop, straight decoration on flat surface;  $5\frac{1}{4}$  by  $2\frac{1}{3}$ .—Presented by Lord Farnham. No. 256, narrow, chisel edge, wings bent over stop; the slight flanges run down to cutting edge;  $5\frac{5}{8}$  by  $2\frac{1}{4}$  (Sirr). No. 257, narrow, chisel edge, stop and wings merge in casting, slightly imperfect at top;  $5\frac{5}{8}$  by  $2\frac{1}{8}$ . No. 258, broad faced, with curved points, small stop with wings hammered over it, straight raised ornament below;  $5\frac{1}{4}$  by  $2\frac{1}{4}$ .—Presented by Lord Farnham. No. 259, lunette-edged, wings broad and hammered over stop;  $5\frac{5}{8}$  by  $2\frac{1}{4}$ .

SHELF II., Tray L, contains twenty-eight narrow celts, with stops and wings, several imperfect; numbered from 260 to 287. No. 260, a rude specimen, with shallow wings, and high cast ridge below stop; 4\frac{2}{3} inches long by 1\frac{2}{3} across the blade. No. 261, a short specimen, with straight blunt edge, bow ornament below stop, septum defective at top, as if the celt makers had begun to economize the metal in this portion; 4\frac{1}{2} by 2. No. 262, imperfect, stop rising to level of wing, unsymmetrical on edge, 5 by 2 (Dawson). No. 263, chisel-edged, hammered at top, raised triangular ridge below stop;  $4\frac{7}{8}$  by  $2\frac{1}{8}$ . No. 264, imperfect in casting at small extremity, broad chisel edge, side mould-marks, triangular raised ornament below stop;  $4\frac{5}{8}$  by  $2\frac{1}{2}$ ; found in cutting through shoal on River Comoge, near Fedamore, between Glennogra and Sixmilebridge, county of Clare (see Proceedings, vol. v., App., p. 65). No. 265, narrow, semilunar-edged, wings and stop join to form pouch; defective in casting at top;  $4\frac{7}{8}$  by  $1\frac{7}{8}$ ; found in county of Kilkenny. No. 266, lunette recurved edge, defective in casting at top; stop rises up over wings, and forms partial socket;  $4\frac{3}{4}$  by  $2\frac{1}{8}$ . No. 267, lunette recurved edge; stop rises over wings; 4\frac{3}{5} by 2\frac{1}{5}. slightly corroded, lunette edge, with recurved points, broad wings, defective at top, raised ornament below stop; 5 by 2½. No. 269, a good, clean specimen, but perfectly plain, lunette-edged; 5 by 21/4. No. 270, imperfect at top, and in bad preservation, lunette-edged, broad curved ornament below stop; 4½ by 2½ (Sirr). No. 271, broad edge, like No. 247, high stop, with wings hammered over it; 51/4 by  $2\frac{1}{2}$  (Dawson). No. 272, lunette-edged, broad-winged; 5 by  $2\frac{1}{4}$ No. 273, short, broad-edged, wings turned over stop, straight ornament on flat surface;  $3\frac{3}{4}$  by  $2\frac{3}{8}$ ; found in bed of river

at Killimor, barony of Longford, county of Galway.—Presented by Board of Works. No. 274, an imperfect but remarkable specimen, in which the side socket is partially developed, the wings and stop running into each other; septum imperfect; long, narrow blade, semilunar cutting edge; apparently very ancient, and formed of red metal;  $5\frac{3}{4}$  by  $2\frac{1}{4}$ . No. 275, rude, narrow, imperfect at top, partial socket between wings and stop; raised ornament below, slight flanges running into narrow cutting edge;  $4\frac{5}{8}$  by  $1\frac{3}{4}$ . No. 276, the most perfect specimen of the partial socket; see Fig. 263, p. 377; slightly imperfect at both extremities, lunette edge, wings and stop coalesce to form side socket;  $5\frac{1}{8}$  by  $2\frac{5}{8}$ . No. 277, narrow, much injured, wings descend below stop;  $5\frac{3}{8}$  by  $2\frac{1}{8}$ . No. 278, narrow, blunt-edged, no raised stop but wings hammered over groove; 5½ by 2. No. 279, defective, semilunar-edged;  $4\frac{5}{8}$  by  $2\frac{1}{4}$ . No. 280, defective, corroded, narrow, chisel edge; 5½ by 2. No. 281, hatchet-faced, with a wind in side of blade, hammered at top, groove narrow;  $5\frac{1}{8}$  by  $2\frac{1}{2}$ . No. 282, narrow, imperfect, shallow groove, wing and socket coalesce, of very red metal;  $5\frac{1}{8}$  by  $1\frac{5}{8}$ . No. 283, imperfect, rude, thin septum,  $4\frac{1}{8}$ by 2. No. 284, small, hatchet-faced, with partial socket, and straight ornament on front;  $4\frac{5}{8}$  by  $2\frac{1}{8}$  (Dawson). No. 285, imperfect, lunette edge, raised ornament;  $5\frac{1}{2}$  by  $2\frac{5}{3}$ . No. 286, a bad casting, unsymmetrical, imperfect at top, semilunar edge, ridge left in moulding apparent on one side; 5 by  $2\frac{1}{2}$  (Dawson). No. 287, narrow, defective at top, round edge, wings and stop very small;  $5\frac{1}{2}$  by 2 (Sirr).

SHELF II., Tray M, contains fifty-one small, narrow celts, with well-developed stops and wings; and numbered from 288 to 338. No. 288, hatchet-faced;  $4\frac{3}{8}$  inches long by  $2\frac{1}{4}$  broad (Dawson). No. 289, ditto, imperfect at top, with pouch-shaped stop;  $4\frac{3}{4}$  by 2. No. 290, perfect, lunette-edged;  $4\frac{1}{4}$  by  $2\frac{5}{8}$  (Dawson). No. 291, imperfect, badly cast, semilunar edge, slight shallow wings and stop;  $4\frac{3}{4}$  by  $2\frac{1}{4}$ . No. 292, imperfect, rude, blunt at edge, slightly ornamented below rudimental stop;  $4\frac{3}{8}$  by  $1\frac{3}{4}$ . No. 293, rude, massive, blunt on semilunar edge, high stop, raised, curved ornament below it;  $5\frac{1}{8}$  by  $2\frac{3}{8}$ . No. 294, chisel edge, deep groove between broad wings, thin septum, imperfect at top;  $4\frac{5}{8}$  by 2. No. 295, narrow, roundedged, imperfect in wings;  $4\frac{1}{9}$  by  $1\frac{5}{8}$ . No. 296, lunette edge, slightly imperfect at top, cast-mark shows that the sides of mould did not match;  $4\frac{1}{4}$  by 2 (Dawson). No. 297, rude, massive, as if

badly cast in a rude mould, septum imperfect at top; 4\frac{3}{5} by 2\frac{1}{2}. 298, narrow, chisel-edged, broad in the wings, which with stop form side socket; 4½ by 1¾; found in county of Tipperary. No. 299, much injured, lunette edge, 4½ by 2. No. 300, a good specimen, lunette-edged with recurved points, side sockets formed with wings and stop;  $4\frac{\pi}{4}$  by  $2\frac{\pi}{5}$ . No. 301, short, sharp hatchet-edge, imperfect at top, slight side socket;  $3\frac{7}{8}$  by  $2\frac{1}{8}$ . No. 302, imperfect at small extremity, bears marks of sharpening on hatchet face; 4 by  $2\frac{1}{8}$  (Sirr). No. 303, rude and imperfect in casting, lunette and recurved edge;  $3\frac{5}{8}$  by  $1\frac{7}{8}$ .—Presented by executors of Leslie Ogilby, Esq. No. 304, lunette edge, with slight side socket;  $4\frac{5}{8}$  by No. 305, rude, massive, badly cast, much hammered at top, as if from long use as a chisel; 4 by 2. No. 306, a bad, lumpy casting, lunette edge, with side sockets; 3\frac{3}{4} by 2\frac{1}{8} (Dawson). No. 307, rude, imperfectly cast, corroded, slight side sockets; 37 by 124 (Dawson). No. 308, imperfect, lunette-edged, much hammered at top;  $3\frac{7}{8}$  by  $1\frac{7}{8}$ . No. 309, lunette edge, imperfect at top;  $2\frac{7}{8}$  by  $2\frac{1}{8}$ . No. 310, lunette-edged, with much recurved points, hammered at top, side sockets, ornamental ridge below stop. No. 311, narrow, rude, imperfect, corroded, semilunar-edged; 3½ by 1½.—Presented by executors of Leslie Ogilby, Esq. No. 312, of bright yellow metal, rude, slightly imperfect, semilunar edge, wings and stop coalesce;  $3\frac{7}{8}$  by  $1\frac{5}{8}$ . No. 313, narrow, imperfect at top, chisel edge, raised, bow ornament below rudimental stop; 4 by 1 ; found in the parish of Rasharkin, county of Antrim. No. 314, perfect, lunette edge, wings bent over stop, raised ornament;  $3\frac{7}{8}$  by  $2\frac{1}{8}$ —"found 3 feet under surface, in excavating Toome bar, the ancient ford on the River Bann, between the counties of Derry and Antrim, and near Toome Castle, on the Antrim side."—Presented by Board of Works. 315, rude, chisel-edged, imperfect at top from defective casting, wings bent over slight stop. The turn-in of the wings, in this as well as the next specimen, was evidently effected in the mould; 35 by 1\frac{5}{8}. No. 316, curved, and symmetrical in edge, wings turned over, slight stop; 3\frac{1}{3} by 1\frac{5}{6}. No. 317, lunette edge, recurved points, defective at top, a handsome raised ornament occupies surface below stop; 33 by 21. No. 318, rude, narrow, round-faced, with deep grooves; 3 by 1 (Dawson). No. 319, a remarkable specimen, in which the wings are but rudimentary, and the stops much developed, lu-

nette-edged; 3½ by 1½ (Dawson). No. 820, rude, narrow, in bad preservation, round edge, hammered at top; 35 by 15 (Dawson). No. 321, imperfect at top, shallow stop, lunette edge, apparently ground; 37 by 2 (Dawson). No. 322, very rude, narrow, round edge, imperfect at top, side sockets; 33 by 13. No. 323, rude, narrow, chisel edge, imperfect, corroded, 33 by 13 (Dawson). 324, very short, lunette edge, much hammered at top; 28 by 18. No. 325, narrow, chisel edge, very broad in wing, deep side sockets, slightly ornamented below stop; 33 by 13, and 14 across width of wing. From county Kilkenny. No. 326, narrow, chisel-edged, deep side sockets, 3\frac{1}{8} by 1\frac{2}{8} (Dawson). No. 327, lunette edge, imperfect, with wings and stop; 3 by 11. No. 328, rude, narrow, blunt, chisel edge, side sockets; 2\frac{2}{3} by 1\frac{2}{3} (Dawson). No. 329, short, broad, lunette edge; wings turned over groove, cast bow ornament below; 3½ by 1½. No. 330, very rude, small, round-edged, wings and stop coalescing; 2\frac{3}{4} by 1 (Dawson). No. 331, small, hatchet face, imperfect in casting at top, slightly ornamented; 24 by 14. No. 332, lunette edge, narrow in the face, but broad in wings, slight cast ornament below stop;  $2\frac{7}{8}$  by  $1\frac{1}{4}$ . No. 333, a curious and small specimen of this variety; chisel edge bearing marks of sharpening, with a stone, narrow groove, sharp-edged wings, unsymmetrical; 23 by 11. No. 334, rude, badly cast, lunette recurved edge, defective in top and wings, ornamented below stop;  $2\frac{7}{8}$  by  $1\frac{3}{4}$  (Sirr). No. 335, imperfect, chisel edge, side sockets; 3 by 1½. No. 336, very small, semilunar edge, deep side sockets, imperfect at top; 2 $\frac{1}{3}$  by  $1\frac{3}{8}$ . No. 337, chisel edge, imperfect at top;  $2\frac{7}{8}$  by  $1\frac{1}{2}$ .—Presented by W. R. Wilde, Esq. No. 338, very short and broad, round-faced, blunt, corroded, side sockets; 2\frac{3}{4} by 1\frac{3}{5} (Dawson).

There is scarcely a good perfect specimen on this Tray, and, from the number of imperfections in casting, they present, as a whole, all the appearance of specimens which might have been collected in the workshop of a celt-maker. They also strengthen the argument advanced for the ancient manufacture of all such articles in Ireland.

SHELF II., Tray N, contains eighteen long, narrow celts, with wings, stops, and loops; numbered from 339 to 356. No. 339, imperfect at top, chisel edge, hammered at small extremity, well-developed side sockets, loop imperfect;  $4\frac{1}{8}$  inches long by  $1\frac{7}{8}$  wide.

No. 340, narrow, with lunette but imperfect edge, apparently shar\_ pened; shallow grooves and side sockets, loop perfect, ornamented with raised central bar and curved ridge on flat surface below stop; 5½ by 2, see Fig. 306 (Dawson). No. 341, very imperfect, narrow, round-faced, without stop, septum rising above wings, loop fractured, slight marks of hammering upon top, so that, although it may never have been used with a handle, it was evidently employed as a chisel; 4½ by 1½. No. 342, broad, chisel edge, slightly corroded, wings shallow, but turned in over groove below, apparently in casting, loop perfect;  $4\frac{a}{2}$  by  $2\frac{1}{6}$ ; Fig. 265, p. 379. No. 343, slightly imperfect in septum, lunette-faced, with recurved points, ground on cutting edge, side sockets formed by turning in the lower extremities of the wings to meet a raised stud at their angles, loop perfect and high on socket; 4 by 25. No. 344, rather chisel-edged, corroded, deep side sockets projecting into ornaments, loop opposite sockets;  $4\frac{7}{8}$  by  $2\frac{1}{8}$  (Dawson). No. 345, lunette edge, notched at smaller extremity, deep side sockets, sides do not correspond, owing to moulds not meeting perfectly; 53 by 21.—Presented by Shannon No. 346, narrow in the shaft, and broad in curved Commissioners. cutting edge, shallow grooves, with slight side sockets, ornamented on the face like No. 340, large perfect loop;  $6\frac{1}{4}$  by  $2\frac{1}{2}$ . "Taken out of bed of Shannon by C dredge." No. 347, large, perfect, but unsymmetrical from moulds not meeting fairly above, the great object being evidently to produce a good cutting edge, which is always perfect, while the upper portion did not receive so much attention in the casting. Long in the blade, side sockets, loop perfect, slight triangular ornament on face;  $6\frac{1}{2}$  by 3. No. 348, small, imperfect at wings and top, semilunar edge, side sockets, loop worn on inner side; 35 by 25; found at Shannon-Bridge, and — Presented by Shannon Commissioners. No. 349, rude, imperfect at top, circular side sockets, semilunar edge, wide loop placed opposite sockets; 5 by 17, found at Keelogue Ford, and—Presented by Shannon Com-No. 350, short, semilunar-edged, lower end of wings missioners. turned in over slight stop;  $3\frac{7}{8}$  by 2 (like Figure 256, p. 379). No. 351, lunette edge, hammered at top, deep side sockets, loop; 5½ by No. 352, narrow in the shaft and broad in the hatchet face, wings and stop coalesce, raised side ornament, small loop; 6 by 23. No. 353, a good specimen, graceful in shape, lunette edge, with much recurved points, groove shallow at top, side face pleasingly decorated by a central ridge, and elevated side edges, loop perfect, circular apertures in hollows of sockets;  $6\frac{3}{8}$  by  $2\frac{7}{8}$  across blade, and  $\frac{7}{8}$ ths at small extremity. No. 354, same variety, but not so good a cast, and wanting recurved points, massive loop, opposite shallow stop, a slight cast ornament on the face;  $6\frac{3}{4}$  by  $2\frac{3}{4}$ .—Presented by Shannon Commissioners. No. 355, rather a rare form of this variety, massive, thick, unornamented, semilunar-edged, with deep sockets and elliptical broad stop, oblique at small extremity;  $5\frac{1}{3}$  by  $2\frac{1}{4}$ . No. 356, same variety as No. 352, corroded, broad, hatchet face, ornamented like No. 340, shallow groove, loop perfect;  $6\frac{1}{8}$  by  $2\frac{3}{8}$ ; found in the county of Galway.

SHELF III., Tray O, contains thirty-five socketed and looped celts, some ornamented, numbered from 357 to 391. The socketed celts commence here, and end with No. 569, on Tray S. 357, a plain, rude, unornamented, socketed celt, rather chiseledged, oval in socket; 3\frac{1}{8} inches long, 1\frac{7}{8} broad in cutting edge, and 2 across the long diameter of the oval socket, which is  $2\frac{1}{2}$  deep, so that the solid portion is about 7ths of an inch; loop thin, but perfect (Dawson). No. 358, a much injured and corroded specimen of the wedge-shaped socketed celt, originally quadrangular in the socket, and slightly ornamented in the rim; loop perfect; 47 by No. 359, imperfect on cutting edge, loop socket oval, with 1홍. slightly raised margin, having a hole on one side, as if for insertion of a rivet, the only example of the kind in the Collection; the antiquity of this aperture is, however, questionable. It is now 21/2 by 18. On looking through this specimen, may be seen at the bottom the septum or slight ridge which marked the joining of the double core used in casting. No. 360, short, round-faced, with a raised ornament below socket margin; loop perfect; 2½ by 13. No. 361, gold-coloured, round-edged, raised bar or fillet above large perfect loop, socket circular; 17 by 17 in blade, and 15 across outer edge of socket.—Presented by R. A. Gray, C. E. (see Proceedings, vol. v., App., p. 56). No. 362, of bright yellow metal, in good preservation, broad fillet, loop, socket oval, and having three ridges running down its interior, the marks of the three-pieced core;  $2\frac{3}{5}$  by  $1\frac{3}{4}$ ; "found 4 feet below the old bed of the Woodford River, townland of Cormeen, county of Cavan," and—Presented

by Board of Works. No. 363, of bright yellow metal, semilunar edge, broad fillet round edge of oval socket; loop; 23 by 2.—Presented by Lord Farnham. No. 364, long, semilunar-edged, circular socket margined by a ridge overlapping a broad groove, which surrounds that part above a thick broad loop;  $3\frac{1}{2}$  long by  $2\frac{1}{2}$  broad, and  $1\frac{5}{8}$ ths from out to out of socket, which is  $2\frac{1}{8}$  deep (Dawson). No. 365, perfectly plain, slightly corroded, very thin, hatchet face, an imperfection in casting like a rivet-hole at edge of circular socket; loop remarkably slight;  $2\frac{1}{8}$  by  $2\frac{3}{8}$ . No. 366, rather square, chisel-edged, oblique at top, apparently from bad casting, loop perfect, no remains of core marks in socket, but a circular grooved line surrounds the interior; a different form of casting was evidently used with this specimen; 3 by 1\frac{2}{3}. No. 367, short, saddler's knifeedged, nearly circular in socket, loop, and top fillet; 2\frac{3}{4} by 2\frac{1}{4} (Dawson). No. 368, short, round-edged, oval in socket, a double fillet runs above perfect loop; 2\frac{3}{4} by 1\frac{1}{4} (Dawson). This specimen is covered with a fine, clean patina, or varnish. No 369, short, hatchet-faced, plain, mould-marks on edge, oval in socket, three core lines, loop small;  $2\frac{1}{2}$  by  $2\frac{3}{5}$  (Dawson). No. 370, lunette-edged, plain, oval in socket; 2\frac{3}{4} by 2\frac{1}{8}. No. 371, long, imperfect, wanting loop and part of socket; hatchet-faced, plain, slightly corroded; 41 by 2\frac{3}{6}. No. 372, in good preservation, round-edged, oval socket, a double fillet surrounds the margin, loop elliptical;  $3\frac{1}{4}$  by  $2\frac{3}{8}$ . No. 373, plain, semilunar-edged, slightly corroded, loop perfect;  $3\frac{1}{8}$  by  $2\frac{5}{8}$ . No. 374, of fine smooth metal, covered with a greenish patina, semilunar blunt edge; a rude, double fillet, as if made by hand, surrounds oval socket, loop strong;  $3\frac{1}{8}$  by  $2\frac{1}{4}$  (Dawson). No. 375, plain, long and narrow, corroded, elliptical in blade, and circular in thin socket, loop large and circular; 28 by 21. The socket has been hammered on one side, as if it had been used as a chisel, like the narrow-winged celts (Sirr). No. 376, in good preservation, semilunar edge, socket oval, deeply marked with core ridges, edge indented, loop high;  $3\frac{1}{4}$  by  $2\frac{3}{5}$  (Dawson). No. 377, round, blunt edge, socket circular, with broad fillet round it at upper insertion of thick heavy loop;  $3\frac{1}{4}$  by  $2\frac{1}{8}$  (Dawson). No. 378, plain, corroded, round edge, nearly circular in socket, loop perfect; 3\frac{3}{5} by 2\frac{1}{4} (Sirr). 379, round in the edge, and circular in the socket, with raised bar surrounding upper edge above thick loop, cast ornament; described

and figured at p. 392; a decoration formed in the mould surrounds the insertions of the loop, as if intended to be worked afterwards with a tool, but the castings had never been cleared off;  $3\frac{1}{4}$  by  $2\frac{1}{2}$ . No. 380, a remarkable and rather rare specimen, lunette recurved edge, five-sided in shaft, massive edge and loop, indented below, oval everted socket margin; 3½ by 25. No. 381, long, round-edged, flat above cutting edge, socket circular, raised fillet above strong loop, slightly corroded;  $3\frac{1}{2}$  by  $2\frac{1}{3}$ . No. 382, of fine close-grained metal, like No. 374, semilunar edge, unornamented, loop perfect, socket slightly irregular; 3½ by 2½ (Dawson). No. 383, semilunar-edged, with sharp extremities, double fillet round circular socket, thick heavy loop; 3\frac{3}{5} by 2\frac{1}{5}. No. 384, lunette-edged, a slight indentation surrounds oval socket, loop long and flat; 3 by 23. No. 385, hatchet face, plain, slightly corroded, loop imperfect, socket nearly circular; 3½ by 2¾ (Dawson). No. 386, large, semilunar-edged, socket thinner on one side than another, slightly raised fillet, oval loop apparently worn on inner surface;  $4\frac{1}{8}$  by  $2\frac{3}{4}$ , and  $3\frac{1}{4}$  deep in socket. No. 387, a good specimen, semilunar face, oval socket, with raised lip, narrow loop;  $3\frac{3}{4}$  by  $2\frac{3}{4}$ ; procured from Killala, county of Mayo (Sirr). No. 388, much corroded, loop broken, semilunar edge; 37 by  $2\frac{1}{2}$  (Sirr). No. 389, a good specimen, round and broad in the blade, oval in socket, loop large and perfect, fillet broad and slight; 3½ by 2¾; found at Athlone, and—Presented by Shannon Commis-No. 390, smooth, unornamented, of fine close-grained metal, like Nos. 374 and 382, which it much resembles, and, like them, has an irregular margin to the oval socket;  $3\frac{1}{2}$  by  $2\frac{5}{8}$  (Daw-No. 391, presents somewhat the same characters as the preceding, but a slight tooled indentation surrounds the irregular margin of the oval socket, loop perfect; 3\frac{3}{8} by 2\frac{3}{8}.

SHELF III., Tray P, contains thirty-five socketed and looped celts, numbered from 392 to 426. No. 392, short, compressed, chisel-edged, oval socket, with slight raised fillet round the margin, loop large;  $2\frac{5}{8}$  inches long, by  $1\frac{7}{8}$  across the blade, and  $\frac{7}{8}$ ths in the clear of the short axis of the socket. No. 393, short, lunette-edged, compressed, socket oval, loop round;  $2\frac{1}{8}$  by 2. No. 394, lunette-edged, oval socket, with indented ornament, cast mark on side edge;  $2\frac{5}{8}$  by  $2\frac{1}{4}$  (Dawson). No. 395, compressed, lunette-edged, socket a long oval, with a slightly everted margin, loop heavy;  $2\frac{7}{8}$  by  $2\frac{3}{8}$ .

No. 396, round edge, socket oval with imperfect margin, loop wide, and its insertions runing off into sides of socket, raised ornamentation; triple core marking the ends of the ridges not meeting in the angle below, so that probably the core was composed of several pieces;  $2\frac{3}{4}$  by  $2\frac{1}{8}$ .—Presented by Lord Farnham. No. 397, a good clean specimen, resembling the fan-shaped celt in the blade, plain, circular in socket, loop; 3 by  $2\frac{1}{2}$ . No. 398, long, chisel edge, circular in socket, with raised fillet below margin, broad low loop; 31/4 by 1\frac{3}{4}. No. 399, long, recurved lunette edge, plain, oval socket, large perfect loop;  $3\frac{1}{8}$  by  $2\frac{1}{8}$  (Dawson). No. 400, thick and massive, narrow, semilunar edge, plain, oval socket, circular loop; 3 by 2 (Dawson). No. 401, long, compressed in middle, semilunar edge, fractured from defect in casting, oval socket, with large elliptical loop;  $3\frac{1}{2}$  by  $2\frac{1}{2}$ ; found near Dunshaughlin, and—Presented by Lord Farnham. No. 402, flat, angular on side edges, hatchet face, socket oval with raised margin, small loop;  $3\frac{1}{8}$  by  $2\frac{5}{8}$  (Dawson). No. 403, plain lunette edge, nearly circular in socket, wanting core marks, slight round loop;  $3\frac{1}{8}$  by  $2\frac{2}{8}$ ; from the county of Tipperary (Sirr). No. 404, lunette slightly recurved edge, undecorated, socket circular; 3 by 2½ (Dawson). No. 405, flat and compressed, straight chisel edge, socket elliptical, with triple fillet below everted margin, loop placed high up;  $3\frac{1}{4}$  by  $2\frac{1}{4}$ . No. 406, a fine specimen, broad, lunette recurved edge, plain, oval socket, loop large and sharp on inner edge; 3½ by 3 (Sirr). No. 407, plain, brassy, hatchet edge, slightly oval in socket, loop massive, large core ridge;  $3\frac{1}{2}$  by  $2\frac{5}{8}$  (Dawson). No. 408, narrow in shaft, six-sided, hatchet-faced, undecorated, socket oval, in the bottom of which still remains an inch of the wooden handle, indented with the core ridges, showing that it was forced into its place (see p. 383); 35 by 28; "found in the River Erne, in loose stones and gravel, about two feet below the bed of the river, in townland of Bessbrook, parish of Annagh, barony of Lower Loughtee, and county of Cavan." No. 409, plain, long, narrow in blade, lunette edge, socket circular, loop thin; 35 by 21.—Presented by R. A. Gray, C. E. No. 410, massive, broad hatchet face, oval socket with indented edge, loop small;  $3\frac{5}{8}$  by  $3\frac{1}{8}$ .—Presented by the executors of Leslie Ogilby, Esq. No. 411, a fine specimen, in good preservation, semilunar edge, slightly oval socket with triple fillet below wide-spread margin, loop broad; 3½ by 2½ (Dawson).

412, plain, round chisel edge, oval socket with trumpet mouth (Sirr). No. 413, large, lunette edge, socket circular, with indented margin, loop small; 3\frac{3}{4} by 2\frac{7}{8}.—Presented by the Shannon Commissioners. No. 414, rude, plain, slightly corroded, edge round, socket circular, loop wide and thin;  $3\frac{3}{4}$  by  $2\frac{1}{3}$  (Dawson). No. 415, broad, lunette edge with slight recurved points, socket circular, with raised rim below everted margin, loop small; 33 by 3. No. 416, fan-shaped edge, circular socket, compressed opposite large wide loop; a slight raised band,  $3\frac{1}{4}$  wide surrounds the socket edge;  $3\frac{3}{4}$  by  $2\frac{7}{8}$ . No. 417, perfect, fan-shaped edge, a raised band passes round circular socket opposite insertion of narrow loop;  $4\frac{1}{8}$  by  $2\frac{7}{8}$ . No. 418, in bad preservation, round hatchet edge, socket circular, with three raised bands, loop defective; 3\frac{3}{4} by 2\frac{1}{2} (Sirr). No. 419, plain, broad, hatchet-face, massive loop, socket circular; 3\frac{3}{4} by 3. No. 420, plain, lunette edge, oval;  $3\frac{3}{4}$  by  $3\frac{1}{8}$  (Sirr). No. 421, unornamented, round face, socket circular, loop small; 37 by 24. No. 422, plain, semilunar edge, socket oval with oblique margin, loop high; 3\frac{3}{4} by 2\frac{3}{4} (Dawson). No. 423, long, massive, six-sided, round face, socket circular, eye of loop small;  $4\frac{1}{2}$  by  $2\frac{3}{4}$ ; "found in deepening the bed of the river in the townland of Derrindrehid, parish of Killeshandra, barony of Tullyhunco, and county of Cavan."—Presented by the Board of Works. No. 424, massive, remains of patina on part of surface, lunette edge, circular socket, loop strong; 4½ by 3½. No. 425, of bright yellow metal, edge semilunar, socket circular, with broad fillet passing round margin; 4½ by 2½. No. 426, thin, defective in casting, round edge; 3\frac{3}{4} by 3 (Dawson).

SHELF III., Tray Q, contains forty-two socketed and looped celts, mostly long and narrow, some axe-shaped; numbered from 427 to 468. No. 427, short, round-faced, triple ornament, round socket, loop perfect;  $2\frac{1}{4}$  inches long, by  $1\frac{3}{4}$  wide in the blade—Presented by the Shannon Commissioners. No. 428, small, much corroded, hatchet-faced, covered with an incrustation like iron rust, loop circular; 2 by  $2\frac{1}{4}$ . No. 429, slender, lunette edge, recurved points, socket circular, unornamented, loop perfect;  $2\frac{7}{8}$  by  $1\frac{7}{8}$  (Dawson). No. 430, slender, hatchet-faced, socket circular, unornamented, loop perfect; 3 by  $1\frac{3}{4}$  (Dawson). No. 431, imperfectly cast, lunette edge, plain, socket oval, loop slender, worn;  $3\frac{3}{4}$  by  $2\frac{1}{4}$ . No. 432, plain, round edge, socket oval with indented margin, loop deficient;  $3\frac{1}{8}$  by 2.

No. 433, long and slender, hatchet edge, ten-sided at top, socket circular with slight outer ornament, loop massive; 4 by  $2\frac{1}{4}$ . No. 434, large, plain, semilunar edge, socket quadrangular, loop broken; 4 by 2\frac{1}{2}. No. 435, flattened, broad, lunette recurved edge, socket oval, with double fillet round outer margin, loop large; 3\frac{3}{2} by 2\frac{1}{2}. No. 436, a fine specimen of the hatchet-faced variety of bronze celt, resembling in the blade some of the axes in the Iron Collection, especially No. 244, on Tray J, socket oval, loop massive; figured and described at page 385. No. 437, small, rude, corroded, chisel edge, quadrangular socket and shaft; no core-marks, as is common in this variety; 21 by 15: "found at Loughran's Island, on the Lower Bann," and—Presented by the Board of Works. No. 438, flattened accidentally, triple core-marks, semilunar edge, slender loop, decorated round socket and on side face, but ornament much effaced; 2½ by 17. No. 439, a small specimen of the hatchet variety, thick, socket oval with marginal indentations, loop circular;  $2\frac{5}{8}$  by  $2\frac{1}{8}$ . No. 440, thick, lunette edge, angular on sides, socket oval with indented margin, loop massive; 2\frac{3}{2} by 2\frac{1}{8}. No. 441, slender, narrow in shaft, chisel edge, socket circular, with inner core-mark and raised band externally, loop small and placed high up; 3½ by 2 (Dawson). No. 442, slender, semilunar edge, loop perfect, oval socket, raised fillet, sharp side angles, forming slight ornaments on both edge views; 34 by 2; found at Aughnacloy, county of Tyrone (Dawson). No. 443, perfectly plain, very thin, slender, chisel edge, oval socket with trumpet mouth, very small loop; 3½ by 2 (Dawson). No. 444, slender, with roped ornament at top, figured and described at page 384, deficient on one lip of socket. No. 445, very perfect, broad, flat, chisel edge, socket a compressed oval with double moulding outside, loop large; 3\frac{3}{4} by 2\frac{1}{4}; found in the Shannon, and—Presented by the Shannon Commissioners. No. 446, a fine specimen of the axe-shaped variety, like Fig. 281, page 385, octagon shaft, blade edge nearly straight, loop small, socket oval with large ridge externally, no vestige of core-mark; 3\frac{3}{4} by 3\frac{1}{4}. No. 447, small, round edge; socket oval, with triple ornament externally; 21 by No. 448, ditto; socket circular, with three bands below margin, large double core-marks; 2\frac{3}{2} by 1\frac{3}{4} (Sirr). No. 449, rude, plain, round in edge, circular in socket, loop slight and apparently worn; 27 by 13 (Dawson). No. 450, broad, semilunar edge, socket

oval, plain, loop narrow; 3½ by 2¾. No. 451, slender, compressed, unornamented, six-sided in shaft, lunette edge, socket irregular, loop small and placed high up; 3½ by 2½ (Dawson). No. 452, of graceful shape and in fine preservation, except the loop, which has been broken, very round in the face; socket circular, and not quite an inch wide in the clear, with broad corded ornament on external surface; a fine patina or varnish covers the whole of this specimen;  $3\frac{1}{2}$  by 2 (Dawson). No. 453, long, narrow, injured in socket, semilunar edge, loop small; found in the Bog of Allen, county of Kildare; 3\frac{3}{4} by 2\frac{1}{4}. No. 454, small, lunette edge, socket circular, loop round;  $2\frac{1}{8}$  by  $1\frac{1}{2}$ . No. 455, short, semilunar edge, quadrangular socket with everted margin over broad fillet, loop perfect; covered with an incrustation of iron (see page 394), has some Irish letters engraved upon it; 2½ by 1½. No. 456, short, round-edged, highly ornamented by five raised longitudinal bars running from the fillet below elliptical socket to cutting-edge; 21/2 by 1\frac{3}{4} (Dawson). No. 457, small, axe-shaped, slightly corroded, socket oval with everted edge, loop narrow; 13 by 13; no mark of core-mould. No. 458, small, narrow, lunette edge, socket circular, with trumpet opening, filleted; 25 by 11 (Dawson). No. 459, small, chisel-edged, socket circular with double moulding externally, 2 by 1\frac{1}{4}. No. 460, small, compressed, worn, highly ornamented, loop attached to margin of socket, 2 by 17; figured and described at page 385. No. 461, perfect, in fine preservation, plain, except a slightly raised bar, round circular socket, semilunar edge, loop well formed;  $2\frac{3}{4}$  by  $2\frac{1}{4}$ .—Presented by the Executors of Leslie Ogilby, Esq. No. 462, thick, plain, casting defective at margin of oval socket, triple core-mark, lunette edge, loop wide; 3½ by 2¾. No. 463, perfect and in fine preservation, slender, thin, semilunar edge: socket circular, within it runs a narrow fillet sths below the edge of the socket, shaft hexagonal; loop small and well cast; 31 by 13, and 1 in the clear of the socket (Dawson). No. 464, perfect and in good preservation, flat, axe-shaped, quadrangular in socket, plain, loop small; No. 465, perfect, slender, unornamented, broad, semilunar edge, circular in socket, loop thick; 3\frac{5}{3} by 2\frac{1}{4}. No. 466, a fine specimen, in excellent preservation, with a highly decorated moulding an inch broad surrounding circular socket, axe-shaped edge, six-sided in shaft, loop circular and well cast; 4½ by 23, socket  $3\frac{3}{8}$  inches deep, and 1 wide in the clear at top (see Fig. 277, page 384). No. 467, plain, thick, semilunar edge, socket oval, loop large and wide;  $3\frac{3}{4}$  by  $2\frac{1}{2}$ ; found near Newry, county of Down. No. 468, one of the largest socketed celts in the Collection, flat, highly decorated on the sides, slightly corroded, hatchet-faced, compressed, oval in socket, loop large and thick;  $4\frac{1}{2}$  by 3, and  $1\frac{1}{2}$  in the clear of the long axis of the socket.

SHELF IIL, Tray R, contains sixty-eight small socketed and looped celts; numbered from 469 to 536. No. 469, small, plain, lunetteedged, socket oval, with raised margin, loops high and perfect; 21 inches high by 15 broad in the blade. No. 470, round-faced, oval socket, with narrow fillet above loop; 2 by 13. No. 471, narrow, flattened, oval;  $2\frac{1}{5}$  by  $1\frac{1}{5}$ . No. 472, perfect, and in good preservation, round-faced, circular, decorated;  $2\frac{1}{8}$  by  $1\frac{1}{2}$  (Dawson). No. 473, small, flattened, plain, hatchet-faced, circular; 13 by 15. No. 474, imperfect, and much battered;  $2\frac{1}{8}$ . No. 475, large, loop defective, plain, round-edged, socket circular; 3½ by 2½; found in the county of Tipperary (Sirr). No. 476, round faced, loop large, decorated round circular socket;  $2\frac{5}{8}$  by  $1\frac{1}{4}$ . No. 477, compressed, chiseledged, loop large, raised fillet below everted edge of quadrangular socket, triple core-mark;  $2\frac{3}{5}$  by  $1\frac{3}{4}$  (Dawson). No. 478, long, round-faced, fillet decorated, socket oval, loop perfect; 3 by 11. No. 479, compressed, round-edged, filleted, quadrangular socket; 3 by 15 (Dawson). No. 480, round-edged, loop prominent, and springing from a much elevated fillet, socket oval; 3 by 17 (Daw-No. 481, flattened, lunette-edged with recurved points, filleted, socket a compressed oval; 2\frac{1}{8} by 1\frac{1}{8}. No. 482, a plain, chisel-like celt, without loop, socket quadrangular, edge semilunar; 2½ by 2½.—Presented by Lord Farnham. This and the two specimens beneath it, Nos. 496 and 510, are exceptions to the rule on this Tray, and were cast without loops. No. 483, in bad preservation, plain, round-edged, large loop, socket nearly circular; 2 by 13 (Dawson). No. 484, imperfect, red metal, curiously decorated with raised lines ending in small elevated points running from the origins of the loop; a fillet surrounds the top; lunette-edged; 17 by 13. No. 485, flattened, irregular; oval socket margin edge rather straight; loop perfect; 14 by 15. No. 486, plain, roundedged, socket circular, loop wide;  $2\frac{1}{4}$  by  $1\frac{3}{4}$ . No. 487, sides nearly

parallel, semilunar edge, quadrangular socket, raised fillet, loop on centre of side;  $2\frac{1}{8}$  by  $1\frac{5}{8}$ . No. 488, plain, thin, round-edged, socket oval;  $2\frac{3}{8}$  by  $1\frac{5}{8}$ . No. 489, an imperfect octagon, round-edged, socket circular, loop large; 25 by 5. No. 490, broad, flat, roundedged, loop and fillet, socket a long oval;  $2\frac{1}{2}$  by 2 (Dawson). 491, rudimentary, brassy, round-edged, socket circular, decorated fillet; 23 by 17.—Presented by Lord Farnham. No. 492, narrow, chisel-edged, a corded ornament surrounds the circular socket above loop; 37 by 11 (Dawson). No. 493, semilunar edge, loop large, ornamented like foregoing;  $2\frac{3}{4}$  by  $1\frac{7}{8}$  (Dawson). No. 494, plain, broad-edged socket, circular loop; 2½ by 1½ (Sirr). No. 495, rude, plain, loop defective in casting, edge semicircular, socket oval; 2\frac{3}{4} by 2. No. 496, undecorated, axe-shaped in the blade, like Fig. 281, p. 385; socket small and circular; a very remarkable specimen, and without a loop; 23 long, 23 wide in the cutting edge, and I from out to out of the socket. "Taken up by the Dredge out of the bed of the Shannon, about fifty yards above the New Bridge at Athlone, in October, 1847."—Presented by the Shannon Commissioners. No. 497, small, lunette-edged, looped and filleted, socket nearly circular; 2½ by 1¾. No. 498, plain, lunette-edged with recurved points, loop imperfect, margin of oval socket defective; 17 each way. No. 499, perfect, plain, flattened, hatchet-edge, socket oval; 2 each way. No. 500, narrow, chisel-edged, loop wide, socket margin filleted, and wider than cutting edge; 2 by 13. No. 501, rude, crooked, narrow-bladed, socket a long oval, loop strong; 2 by 1\(\frac{1}{4}\) (Dawson). No. 502, plain, round-edged, loop perfect, socket quadrangular, with slightly decorated margin; 2 by 15 (Dawson). No. 503, a good specimen, decorated with double indented ornament round top, round-faced, socket oval, loop perfect; 2½ by 1¾. No. 504, plain semilunar edge, socket circular, loop round, 2\frac{1}{2} by 2\frac{1}{2}. No. 505, ditto, 2\frac{3}{4} by 2 (Dawson). No. 506, semilunar edge, loop broad, a fillet surrounds circular socket; 21/2 by 2 (Dawson). No. 507, plain, flattened, thick, lunette-edge with recurved points, loop massive; 25 by 2. No. 508, ditto; 27 by 21 (Dawson). No. 509, flattened, semilunar-edged, oval socket, loop imperfect; 2\frac{3}{4} by 1\frac{7}{8} (Dawson). No. 510, small, plain, without loop, figured and described at pages 383 and 384. No. 511, small, flat, loop defective, chisel edge, socket circular; 2 by 13 (Dawson). No. 512, flattened, round-edged, loop worn, socket a compressed oval; 2 by 18 (Dawson). No. 513, plain, graceful, lunette-edged, socket nearly circular, loop elliptical; 17 by 13 (Dawson). No. 514, plain, chisel-edged, looped, socket oval; 17 by 11. No. 515, broad, flat lunette-edged, plain, triple core-mark in oval socket, loop imperfect; 2 by 17. No. 516, plain, round-edged, oval, looped and filleted; 2 by 17. No. 517, plain, flattened, corroded, edge round, loop slight, socket oval; triple core-mark; 2 by 17. No. 518, broad, flat, compressed, plain, chisel-edged, loop springing from everted margin of oval socket; 23 by 17. No. 519, ditto, but more semilunar in cutting edge, 28 by 17. No. 520, ditto, in bad preservation, lunette-edge, margin of oval socket inverted, loop attached to edge, core-mark separates below carving into a triple line on each side; 28 by 2 (Sirr). No. 521, injured in loop and socket, plain; 28 by 17 (Dawson). No. 522, large, flat, plain, metal resembles Nos. 421 and 422 on Tray P, semilunar edge, loop perfect; 3 by  $2\frac{1}{2}$ . No. 523, long, flat, semilunar edge, plain, edge of oval socket everted, loop perfect; 27 by 28. No. 524, the smallest celt in the Collection, and the least recorded in the British Isles; figured and described at p. 386 (Dawson). No. 525, rude, imperfect, loop broken, badly cast; 18 by 18. No. 526, lunette-edged, oval filleted socket, looped; 18 by 11. No. 527, small, flat, corroded, imperfect; 18 by 11. (Dawson). No. 528, socket imperfect, margin corroded; 13 by 18 (Sirr). No. 529, small, rude, edge straight, loop wide, socket oval; 13 by 18. No. 530, small, imperfect in socket, very round in edge, looped and filleted; 13 by 18. No. 531, flattened together, imperfect, decorated with longitudinal ridges in front, broad coremarkings; 2 by 14 (Dawson). No. 532, narrow, chisel-shaped, loop broken, socket circular; 2½ by 1½. No. 533, rude, defective, badly cast, round-faced, core-marks rising into a septum;  $2\frac{1}{4}$  by 18.—Presented by Henry Watson, Esq., county of Limerick (see Proceedings, vol. i., p. 361.) No. 534, rude, flat, plain, unsymmetrical, loop high and elliptical, edge round, socket oval; 21 by 15. No. 535, edge rather straight, socket oval, with everted lip over indented band, loop prominent; 25 by 17 (Dawson). No. 536, of reddish metal, defective, flattened accidentally, loop slight and angular; 28 by 13.—Presented by Lord Farnham.

SHELF III., Tray S, contains thirty-three socketed celts, looped,

and, for the most part, long and narrow, some decorated; numbered from 537 to 569. No. 537, plain and small, quadrangular in socket, lunette-edged; 2 inches by 14. No. 538, narrow, quadrangular, plain, loop wanting; 2g by 1 (Dawson). No. 539, quadrangular, semilunar edge, large broad loop, everted edge to socket; 21 by 11 (Dawson). No. 540, imperfect, loop hammered in, quadrangular, edge round, wreath-like decoration to socket margin; 3 by 12 No. 541, quadrangular, imperfect, no loop, very small in socket, hatchet edge; 3 by 1 degree No. 542, long, narrow, quadrangular, loop defective, corroded; 3½ by 1½. No. 543, quadrangular, narrow, edge unsymmetrical, decorated with three raised ridges; a form of ornament common in this description of celt; 3½ by 1½ (Dawson). No. 544, defective, straight-edged, quadrangular, slightly decorated; 3\frac{3}{8} by 1\frac{3}{8} (Dawson). No. 545, large, quadrangular, imperfect on cutting edge, decorated on flat surface with five raised longitudinal lines crossed by a double fillet above; 4 by 21. No. 546, imperfect, quadrangular; lunette edge with recurved points, large loop, raised socket margin, highly decorated on surface with nine raised lines, every second one of which terminates in three balls; 37 by 21 (Dawson). No. 547, defective for about 13 inch at cutting edge, quadrangular, highly decorated round socket margin, and also on flat surface, by three raised lines ending in balls surrounded with circles. This specimen is now  $3\frac{1}{4}$  by  $1\frac{3}{4}$ . Found at Athlone, and—Presented by the Shannon Commissioners. No. 548, quadrangular, badly cast, large loop, lunette-edge; 2 by 13. No. 549, narrow, quadrangular, straight-edged; 24 by 14. No. 550, quadrangular, lunette edge, fillet round socket; 23 by No. 551, quadrangular, straight-edged, filleted, loop defective; 2\frac{1}{2} by 1\frac{1}{2} (Dawson). No. 552, perfect, decorated with roped ornament round oval socket above double fillet, straight, raised line on side-face, semilunar edge; 3½ by 15. No. 553, narrow, quadrangular, nearly circular in opening of socket, hatchetface, ornamented on side, loop broken; 33 by 17. No. 554, quadrangular, straight-edged, decorated round socket margin, loop wanting; 33 by 13. "Found in deepening the bed of the river in the townland of Derrindrehid, parish of Killeshandra, barony of Tullyhunco, and county of Cavan."-Presented by Board of Works. No. 555, quadrangular, round-edged; a corded ornament surrounds

top of socket passing through loop; 32 by 17. Found at Keelogue Ford, and—Presented by the Shannon Commissioners. No. 556, long, narrow, quadrangular, semilunar edge, loop broken, raised fillet round socket; 41 by 12 (Dawson). No. 557, quadrangular, semilunar edge, broad fillet round socket; 4\frac{1}{2} by 2 (Dawson). No. 558, very long, narrow, and quadrangular, broader in the lateral than the antero-posterior diameter, decorated by a raised line ending in a circle on the flat surface (see Fig. 283, p. 385). No. 559, short, thick, edge curved, socket oval, with a roped and filleted ornament round margin; 2 by 1 k. No. 560, round-edged, six-sided, socket round margin depressed;  $2\frac{1}{2}$  by  $1\frac{3}{4}$ . No. 561, hatchet-shaped, plain, six-sided; 23 by 13. "Found at Keelogue Ford, and—Presented by the Shannon Commissioners." No. 562, four-sided, full-raised ornament round socket, lunette-edged; 23 by 17. No. 563, quadrangular, straight-edged, decorated with three straight lines on flat surface; 3 by 1\frac{1}{2} see Fig. 284, p. 386.— Presented by Executors of Leslie Ogilby, Esq. No. 564, broad, flat, six-sided, hatchet-edged, decorated on flat surface with straight lines ending in arrow points, depressed ornament round socket; 31 by 2; found at Keelogue Ford, and —Presented by the Shannon Commissioners. No. 565, flat, compressed, oval in socket, semilunar in blade, edge sharpened, decorated on side-face by five longitudinal lines, each ending in a circular elevation; 3\frac{1}{8} by 2\frac{3}{8}. No. 566, flat, quadrangular, straight-edged; decorated on flat surface with raised lines and knobs; round oval socket with a double raised fillet; 35 by 21 (Dawson). No. 567, broad, imperfect, chisel edge, double fillet round socket margin; 3\frac{1}{2} by 2\frac{1}{2}. No. 568, the longest socketed celt in the Collection, quadrangular, lunette-edged, raised margin round socket, wide oval loop;  $5\frac{1}{8}$  by  $2\frac{1}{8}$ . No. 569, four-sided, chisel-edged, decorated on the surface and round the socket margin; 47 by 17.

SHELF III., Tray T, contains six perfect and twenty-six fragments of bronze celts of different patterns; numbered from 570 to 601. No. 570, the upper fragment of a large palstave. No. 571, a small, thin, socketed celt, wanting loop; 2 inches long by 1\frac{3}{8} wide. These two specimens—Presented by W. R. Wilde, Esq. See Proceedings, vol. iii. p. 539. No. 572 is of the same size and form, but much corroded and encrusted. No. 573, imperfect, a portion

having been removed for analysis; 13 inches each way; looped, round-edged, unornamented, triple core-mark in socket, supposed to be from the county of Cavan, Museum mark—Farnham 38. Coppery, possessing only 4.56 per cent. of tin (see No. 4 in Mr. Mallet's paper, p. 322, Transactions, vol. xxii.). "The metal was very soft, and resembled No. 2 [new No. 16, on Tray A] in colour, but was not quite so red. Specific gravity, 8.428." No. 574, perfect, small, flat, socketed, ornamented on side, loop large, socket oval; 1 by 1. No. 575, an imperfect socketed celt, round-edged; 3 by 13; analyzed. No. 576, a long hollow celt, imperfect, analyzed by Mallet (No. 3), slightly ornamented round fragment of circular socket; 3\frac{3}{4} by 1\frac{7}{8}. No. 577, perfect, chisel-edged, socket oval with indented margin; 2\frac{1}{8} by 1\frac{1}{2}, found in the Shannon, and—Presented by the Shannon Commissioners. No. 578, large, plain, perfect, round-edged, socket circular, metal reddish; 4 by 21, "found along with a golden bracelet." No. 579, perfect, flat, socket oval, with indented margin; 3\frac{3}{2} by 2. No. 580, small fragment of a palstave, 17 long. No. 581, fragment of blade portion of a palstave;  $2\frac{1}{2}$ . No. 582, ditto, rude and hammered; 25 (Sirr). No. 583, fragment of palstave, casting defective; 3\frac{3}{4}. No. 584, fragment of a socket celt, rudely cast; 3. No. 585, fragment of palstave, defective in casting;  $3\frac{7}{6}$ . No. 586, defective palstave,  $3\frac{1}{6}$ ; a portion removed for Mallet's analysis. No. 587, a thick, rude, broad-edged palstave, hammered at top, slight wings, no stop; 3\frac{3}{8} by 2\frac{1}{8}. Presented by the executors of Leslie Ogilby, Esq. No. 588, a very much corroded palstave, of a greenish-white colour; 5 by 2. No. 589, an imperfect palstave; 45 by 2, said to have been found at Dunshaughlin.—Presented by Lord Farnham. No. 590, a massive, imperfect palstave, of a golden yellow or Dowris-bronze colour, much hammered at top, ornamented on front, three sunken ornaments, apparently drilled in, present upon external face;  $4\frac{3}{4}$  by  $2\frac{1}{8}$ . No. 591, a small wedge-shaped copper celt, thin, flat, and exceedingly primitive in shape; 23 by 13 (Sirr). No. 592, fragment of the upper end of a long, narrow celt; 25. No. 593, a small, long, narrow celt, with slight flanges, much corroded; 3. No. 594, perfect, thin, flat, of the long, narrow variety; 27; analyzed by Mr. Mallet. No. 595, perfect, long, narrow;  $5\frac{1}{2}$  by  $2\frac{3}{4}$ . No. 596, lower fragment of a large, thick, long, and narrow celt;  $3\frac{1}{2}$ . No. 597,

portion of a broad, thin, flat celt, resembling a copper specimen both in shape and colour, hammered at top;  $3\frac{1}{4}$  by  $2\frac{1}{8}$ ; analyzed by Mallet, as No. 1, see Transactions, vol. xxii. p. 322—Presented by Lord Farnham. No. 598, flat, lunette-edged, much hammered at top, rudimentary flanges;  $3\frac{1}{4}$  by  $2\frac{1}{8}$ . No. 599, long and narrow, lunette edge, much corroded;  $4\frac{3}{4}$  by  $2\frac{1}{8}$ . No. 600, long and narrow, hammered on side of cutting edge; 6 by  $2\frac{1}{8}$ . No. 601, flat, broad, and straight in cutting edge, of the long narrow variety, much hammered at top, metal reddish;  $4\frac{3}{8}$  by  $3\frac{1}{8}$ .

RAIL-CASE & contains forty-nine celts of different varieties, and numbered from 602 to 650. No. 602, a copper celt of the same variety as No. 10 on Tray  $\triangle$ ;  $5\frac{5}{8}$  inches long, by  $3\frac{7}{8}$  inches broad in the cutting edge, and 1 at the small square extremity. No. 603, a cleaned copper specimen of the same variety, but somewhat smaller, rough, unsymmetrical in blade; 5 by 3\frac{3}{8}. No. 604, a very small copper celt;  $2\frac{1}{2}$  by  $1\frac{1}{2}$ . No. 605, a triangular copper celt, much hammered, as if forged without smelting from a piece of native copper, thin in the middle, elevated on the edges; 3½ by 25. The locality of this specimen is questionable; it has all the appearance of an American celt; it forms part of the deposit recently made by the Royal Dublin Society. No. 606, bronze, long and narrow, imperfect at small end, most highly ornamented on both surfaces with a great variety of pattern (see Figs. 288 and 289, p. 389). The patina has been removed in several places, and with it the punched or hammered ornamentation;  $6\frac{1}{4}$  by  $3\frac{3}{4}$ ; enumerated as 618 in Proceedings, vol. vii., p. 129. No. 607, long and narrow, with a thick patina or varnish all over it, slightly hammered into an ornament on the side-edges, a double-looped dotted ornament on side face; 5½ by 3 (see Fig. 290, p. 389). No. 608, one of the very finest celts of the long, narrow variety in the Collection; described and figured at p. 365, and resembling No. 72, on Tray B, both in the ornamentation on the edges and flat surfaces (see Proceedings, vol. vi. p. 314). No. 609, long and narrow, hammered edges, highly ornamented on flat with ridges and punched indentations; a slight flange occupies edges from small extremity to cutting-face; 47 by 21, found in the county of Galway, and—Presented by R. A. Gray, C. E. No. 610, a very perfect specimen, long and narrow, broad cutting-edge, entire flat surface covered with longitudinal punched

indentations; 61 by 32.—Deposited by the Royal Dublin Society. No. 611, very rude, much corroded, marked on surface in several places with a stamp; 3 by 2. No. 612, long and narrow, plain; 5 by  $2\frac{1}{4}$ . No. 613, ditto, small; 4 by  $2\frac{1}{8}$ . No. 614, ditto;  $4\frac{3}{4}$  by  $2\frac{1}{4}$ . No. 615, ditto, plain, perfect, broad-edged; 5½ by 3; found in excavations at Portnashoal, on Lower Bann.—Presented by the Board of No. 616, long, narrow, with a beautiful cast ornament on the side, and a rope decoration on edge, patina apparent in some places like a varnish, lunette-edged;  $5\frac{7}{8}$  by  $2\frac{1}{2}$  (see Fig. 294, p. 390). No. 617, long and narrow, slightly imperfect at extremities, much corroded on one side, decorated on the other, covered with green patina, stop and flange rudimental; 63 by 3 (see Proceedings, vol. vii., p. 129.)\* No. 618, rude, in bad preservation, round-edged, rudimental stop and flange;  $4\frac{1}{2}$  by  $2\frac{1}{8}$ .—Deposit R. D. S. No. 619, long and narrow, plain, of bright yellow metal;  $5\frac{1}{2}$  by 3.—R. D. S. No. 620, corroded on one side, lunette-edged, rudimental stop and flange, highly decorated below curved stop with triangular dotted ornament; 5\frac{2}{8} by 3\frac{7}{8} (see Fig. 292, p. 390; see also Proceedings, vol. vii., p. 129.) No. 621, of fine close-grained yellow metal, saddler's knife-shaped blade, stop and flange well marked although not high, decorated both on surface and side edges; 43 by 23. See Fig. 268, p. 379. No. 622, much corroded, long and narrow, straight-edged;  $5\frac{3}{4}$  by 3.—R. D. S. No. 623, short, imperfect at top, lunette-edged; 3\frac{1}{8} by 2\frac{7}{8}.\ldots R. D. S. No. 624, lunette-edged, slightly imperfect, rudimental stop and flange; 4½ by 2. No. 625, imperfect, unsymmetrical, lunette-edged, highly decorated with cast and tooled ornament on sides and edges, rudimental stop and flange;  $4\frac{3}{4}$  hy  $3\frac{1}{8}$  (see Fig. 293, p. 390).—Deposited by Sir B. Chapman, No. 626, rude, plain, lunette-edged; 4 by  $2\frac{1}{2}$ .—R. D. S. No. 627, cleaned, of gold-coloured bronze, slightly corroded, broad saddler's knife-edge, rudimental stop and flange, decorated with engraved and hammered ornament on flat surface between stop and

At vol. vii. pp. 129 and 130 of the Proceedings, six of the celts in this Case are enumerated and described as placed in Case L; they may be identified in the present arrangement under the following alterations in the numbering:—Nos. 617, 620, and 621, are the same in both; No. 618, in the Proceedings, is now 606; No. 619, is 607; No. 622, is 685; No. 609, is 636. In Rail-case L, No. 623, in Proceedings, is now 669; and No. 624 is 668.

blade;  $5\frac{3}{4}$  by  $3\frac{1}{4}$  (see Fig. 299, p. 390). No. 628, a curious specimen, apparently so recent as to look like a forgery, deep-groove, semicircular edge; 41 by 21; figured by Mr. Du Noyer, in the Archæological Journal, vol. iv. No. 629, lunette-edged, wings, and deep groove but no stop, outside edges of wings deeply ornamented, as if with a file; it has a modern appearance; 4\frac{1}{2} by 2\frac{1}{2}.—Deposited by Sir B. Chapman, Bart. No. 630, a very curious, and, probably, modern specimen, with wings and loop, but no stop, decorated on side-edges like the foregoing, and ornamented in the groove with a chequered pattern; 3\frac{3}{2} by 1\frac{5}{2}. No. 631, a small grooved celt, of unique shape, without stop, looking like a forgery; 27 by 18. No. 632, the beautiful fan-shaped celt, figured and described at pp. 373 and 379. No. 633, cleaned, gold-coloured, somewhat like the foregoing, but edge more lunette-shaped, side-view figured and described at p. 379, broad flange, curved stop; 4g by 3. No. 634, a small, very perfect, fan-shaped celt, like No. 632;  $5\frac{1}{8}$  by  $3\frac{1}{8}$ , found in the county of Carlow, and—Presented by Dr. O'Meara. No. 635, a plain palstave celt, without loop, lunette-edged, high wings, thin septum, mould edges irregular; 4½ by 2½. See Proceedings, vol. vii. p. 129. No. 636, a very beautiful long palstave, with wide hatchet face, narrow shaft, broad wings, narrow groove, deep curved ornament below the stop; 7½ by 3½; marked in Proceedings as 609; found in the Silver River, townland of Coleraine Middle, King's County. No. 637, a thick, massive palstave, unsymmetrical, lunette edge with recurved points, rude cast ornament below stop; 5 by 2\frac{3}{8}; it and Nos. 638 and 641 were—Deposited by Sir B. Chapman, Bart. No. 638, a palstave, imperfect, wings and stop coalesce, raised bow-and-arrow ornament below stop, semilunar edge; 6 by  $2\frac{1}{2}$ . No. 639, a massive winged palstave, lunette-edge, slightly imperfect at top, bow ornament;  $5\frac{3}{5}$  by  $2\frac{3}{4}$ .—Presented by Mrs. Ball. (See Proceedings, vol. vi., p. 525.) No. 640, small, rude, short groove, side socket; 3 by 1\frac{3}{4}. No. 641, imperfect, deep side socket ending in raised cast ornament, a large knob of metal is attached to one side; 3\frac{1}{8} by 2. No. 642, a short, unsymmetrical palstave, with a wind in the casting, broad wings and stop, semilunar edge, hammered at top;  $4\frac{1}{2}$  by  $2\frac{1}{8}$ .—R. D. S. No. 643, ditto, large, lunette-edged with recurved points;  $5\frac{1}{3}$  by  $2\frac{3}{4}$ .— R. D. S. No. 644, ditto, smaller, without raised stop, but having

thin ends of wings hammered in below over the groove; it resembles in this respect, Fig. 265, and several specimens on Trays **E**, **M**, and **N**. There is a small and apparently modern hole in one of the wings;  $4\frac{3}{4}$  by  $2\frac{1}{4}$ .—R. D. S. No. 645, plain, badly cast, covered with a green oxidation, chisel-edged;  $5\frac{1}{4}$  by  $2\frac{1}{8}$ .—R. D. S. No. 646, a short lunette-edged palstave;  $4\frac{1}{4}$  by  $2\frac{1}{8}$ .—R. D. S. No. 647, a short palstave, lunette edge, wings and stop uniting;  $4\frac{1}{2}$  by  $2\frac{1}{4}$ .—R. D. S. No. 648, a small, imperfect palstave of reddish metal, hammered, wings and stop coalescing;  $3\frac{1}{2}$  by  $1\frac{3}{4}$ .—R. D. S. No. 649, a lunette-edged palstave, with recurved points, septum thick, wings well developed, but stop rudimentary;  $4\frac{1}{4}$  by  $2\frac{1}{4}$ .—R. D. S. No. 650, a palstave, long in the shaft, lunette-edged, rudimental stop, wings thin, hammered at top; 4 by  $2\frac{1}{4}$ .—R. D. S.

RAIL-CASE L contains thirty-eight celts of the palstave and socketed varieties; numbered from 651 to 688. No. 651, a very perfect palstave celt, sharp at the angles, hammered all over the surface, and covered with a reddish-brown patina, hatchet blade, round small extremity projecting above wings, slight stop; 6% inches long. by 27 broad. This specimen has a fresher or more modern appearance than any other of the same variety in the Collection. It, and the seven following were - Deposited by the Royal Dublin Society. No. 652, a long, narrow palstave, of bright yellow metal, and remarkable for the thinness of wings and stop;  $6\frac{1}{2}$  by  $2\frac{1}{8}$ .—R. D. S. No. 653, a long, chisel-edged palstave, without a stop, slightly hammered at top;  $5\frac{3}{4}$  by  $2\frac{1}{4}$ .—R. D. S. No. 654, a massive palstave, slightly defective, dark-brown colour, bow ornament below stop; 7 by 2\frac{3}{4}.\ldots R. D. S. No. 655, a palstave, corroded, hammered on semicircular edge,  $5\frac{1}{8}$  by  $2\frac{2}{8}$ .—R. D. S. In outline of wings and oblique stop it resembles 636. No. 656, a narrow palstave, much corroded, round-edged;  $5\frac{1}{3}$  by 2.—R. D. S. No. 657, ditto, with slight ridge on site of stop, hammered;  $4\frac{7}{8}$  by 2.—R. D. S. No. 658, a small, badly cast, corroded palstave, wings and stop coalesce; 4 by 15. —R.D.S. No. 659, a short palstave, with lunette edge, raised straight ornament below stop; 41 by 2.—Presented by Viscount Castlemaine. (See Proceedings, vol. vii., p. 297.) No. 660, a chiseledged palstave, said to have been found in one of the Strokestown crannoges;  $5\frac{1}{8}$  by  $2\frac{1}{4}$ . No. 661, large, perfect, lunette-edged palstave; 5\frac{1}{2} by 2\frac{1}{2}. The remainder of the celts in this Case are

No. 662, the largest of the socketed lunette-edged celts socketed. in the Collection, although not so long as the four-sided chisel-edged specimen, Fig. 283, described on p. 385; it measures 4½ inches long, 3½ across the blade, and 2 from out to out of the long diameter of the oval socket.—Deposited by the Royal Dublin Society. No. 663, a large, massive, socketed celt, lunette edge, slightly ornamented with fillet below everted margin of oval socket; 3\frac{3}{2} by 2\frac{7}{8}. No. 664, a graceful specimen, loop defective, semilunar edge, slightly oval socket;  $3\frac{7}{8}$  by  $2\frac{5}{8}$ .—Presented by T. B. Huthwaite, Esq. No. 665, flattened, round edge, triple ornament around socket; 3\frac{3}{4} by 2\frac{3}{4}.--Deposited by Sir B. Chapman, Bart. No. 666, plain, short, roundedged, socket oval; 2½ by 2½. No. 667, perfect, and covered with a brown deposit probably ferruginous, semilunar edge, raised fillet below four-sided socket; 3 by 2. No. 668, plain, unsymmetrical, blade round, loop broken, socket oval; 2\frac{3}{4} by 2\frac{1}{6}. No. 669, light, slender, thin, octagon in section of socket, loop low down on side, semilunar edge; 2\frac{3}{4} by 1\frac{5}{8}; numbered as 623 in Proceedings, vol. vii. p. 129. No. 670, small, short, compressed, hatchet-faced, mould-marks sharp, as if not cleaned off, slightly decorated below oval socket; 1½ long, and 15 broad in the blade. The four next specimens have been cleaned by the process described at p. 374, in order to show their original golden colour. No. 671, of a beautiful golden lustre, perfect in every respect, large, circular, lunette edge, slightly unsymmetrical, a raised quadruple roping below everted socket margin;  $3\frac{3}{4}$  by  $2\frac{1}{9}$ . No. 672, perfect, and of a beautiful reddish-yellow bronze, lunette edge, socket circular, double-grooved ornament; 2\frac{3}{4} by 2\frac{1}{4}. No. 673, gold coloured, slightly corroded, and defective in margin of quadrangular socket, raised double fillet, lunette-edged with recurved points; 2\frac{3}{5} by 1\frac{7}{5}. No. 674, light, graceful, axe-edged, octagon in shaft, raised ornament below circular socket, like Fig. 276, p. 384, slightly corroded all over; 4 by 21/2. No. 675, slender, plain, chisel-edge, socket circular, loop long; 23/4 by 13.—R. D. S. No. 676, perfect, large, lunette edge, roped ornament round oval socket; 3½ by 2½.—R. D. S. No. 677, corroded, loop defective, round-edged, oval socket, remains of fillet ornament;  $3\frac{1}{4}$  by  $2\frac{3}{8}$ .—R. D. S. No. 678, plain, round-edged, oval socket; 3 by  $2\frac{1}{8}$ .—R. D. S. No. 679, defective, corroded, roundedged;  $3\frac{1}{4}$  by  $2\frac{1}{4}$ .—R. D. S. No. 680, perfect, an irregular octagon

in the shaft, socket a long oval, edge semilunar;  $2\frac{\pi}{4}$  by  $2\frac{1}{4}$ .— R. D. S. No. 681, of reddish metal, covered with a green corrosion, lunette-edged;  $2\frac{3}{8}$  by  $2\frac{1}{4}$ .—R. D. S. No. 682, an imperfect cast, socket flattened, six-sided, edge round; 27 by 28, procured from the county of Longford, and presented to Royal Dublin Society by Colonel Patrickson.—R. D. S. No. 683, fractured across blade, much corroded, socket oval;  $3\frac{5}{8}$  by  $2\frac{1}{2}$ .—R. D. S. No. 684, perfect, small, lunette edge, traces of cast ornament between fillet and margin of oval socket; 2 by 17.—R. D. S. No. 685, small, slender, plain, defective, one of the least of its kind, scarcely 2 by  $1\frac{1}{4}$ .—R. D. S.No. 686, a diminutive socketed celt, the smallest in the Collection except No. 524, which is figured and described at p. 386;  $1_{16}$  by 15.—Deposited by the Royal Dublin Society. No. 687, fragment of a large socketed celt found in an ancient crucible, described at page No. 688, a long, narrow, plain celt, fitted into a model handle, figured and described at page 370.—Presented by R. Ball, Esq. (see Fig. 256, p. 370).

No. 1, in this Rail-case, is the celt and handle belonging to Mr. Murray, figured on p. 370. Nos. 2 and 3, the bronze mould, and cast referred to at p. 396; Nos. 4, 5, 6, and 7 are flat, circular portions of antique bronze, found at Balrath, in the county of Westmeath, between (says Mr. R. Murray, of Mullingar, from whom they were procured) "Dysart and Rathconrath, a place abounding in raths and cairns; and along with these pieces of bronze slag were found two or three rough and unfinished-looking celts." Nos. 8 and 9, brass models of English celt-moulds—Presented by Lord Talbot de Malahide. The originals are in the possession of Lord Ravensworth.

How or from what parts of the country the bronze celts—plain, palstave, and socketed—deposited in the Museum by the Royal Dublin Society, as specified in the Proceedings of 27th February, 1860, were originally obtained, there is now very little known. Several have attached card-labels, bearing numbers (19, and from 275 to 388), but, except one entry, "11-24, chip axes of brass," in a printed list of 1812, and referring to Vallancey's Collectanea, vol. iv., the records of that Society do not contain any notice of such articles.

Thirty-one have small green printed labels, corresponding with the numbers in the Catalogue made by the late Mr. J. M. Kemble for the Manchester Exhibition of 1857.

All the celts, as well as other articles in the Collection, that ever bore a mark, still retain on the reverse side all their original labels, viz.:—those referring to the Dawson or Sirr Lists; those of the old Registry of the Museum, vols. i. and ii.; also marks referring to the Trays on which they were placed before the present arrangement and classification, as specified in Mr. Clibborn's Catalogue for the Dublin Industrial Exhibition of 1853. These different references are all set forth in the Manuscript Registry drawn up under the author's direction by Mr. Eagar, and from which this Catalogue has been compiled. That registry, together with all the original labels, mostly supplied by the Board of Public Works, and the Shannon and Drainage Commissioners, have been carefully preserved, and may be had recourse to for purposes of identification.

As specified in the foregoing enumeration, 23 of the celts were found in the Shannon during the drainage operations carried on in that river some years ago. Of these, seven were procured from Keelogue Ford, near Meelick, between the county of Galway and the King's County, already referred to in the description of stone celts at p. 48. A very general impression has long prevailed, and the late Mr. Kemble shared in it (see his Address, vol. vi. p. 464), although there is no record to warrant it in any of the Proceedings of the Academy, that the different specimens from Keelogue were found in distinct strata, arranged in layers of iron, bronze, and stone articles. Such, however, has not been shown to be the fact. That they were deposited in that order during the many contests between the Connaught and Leinster-men at that pass, for centuries, there can be little doubt. But then it must be remembered that the entire depth of silt which had accumulated for thousands of years over the surface of the ford (caused by the crossing of the great esker at that point),

did not much exceed eighteen inches in any part, and that this deposit had become so hard and identified with the stratum on which it rested, as to require blasting. It will, therefore, be seen that no such observation could well have been made, even if the contractors and workmen had been forewarned of the probability of the circumstance alluded to. Furthermore, the force of the current during floods would sweep off the greater portion of such articles into the deep water below the ford. It is much to be regretted that no antiquary visited the place when the works under the Shannon Commissioners were in progress.\*

In a great national Collection like this, derived from all parts of the country, and intended to aid history and ethnology, it is important to bring together, and, when possible, to increase antique articles in proportion to the numbers in which they have been discovered. By so doing we learn what things were in common use, and what were scarce. It is only after collecting for many years, that anything like a complete topographical arrangement by counties or provinces, even of typical articles, can be attempted. Bronze celts are now of nearly as common occurrence as when Vallancey writing in 1782, said: "Multitudes of these instruments are daily dug up in Ireland."

Among the rare uses to which, in the later days of celtmaking, one form of the long-handled palstave with a semicircular blade was applied, was that of fixing it in a bronze socket, at right angles with which there was a circular aperture, through which a wooden handle was passed, and thus the implement was converted into an axe, either of the weapon or

<sup>\*</sup> Since the former part of this Catalogue was printed, search has been made at the office of the Board of Works, for any memoranda which could warrant the impression respecting the stratification of these antiquities; but none such could be found, I have also communicated with Sir Richard Griffith, Chairman of the Board of Works, who in presenting these articles to the Academy on the 9th January, 1848, made the observations which I have printed at p. 48; and he has confirmed the foregoing statement.

tool species. See the figure of one of these implements, so mounted, in Lindenschmit's Catalogue of the Romano-Germanic Central Museum in Mayence (Heft iv. Taf. 2, Fig. 685). There is another blade of this kind in the Museum at Copenhagen, for a fac-simile drawing of which the author is indebted to Director Thomson. Vallancey has represented an Irish one by Fig. 3, Plate 10, vol. iv. of his Collectanea.\* There is an aperture or notch in the small end of each of these articles for passing a stud or rivet through.

SPECIES I .- WEAPONS-BRONZE, 11. AND III.

Swords.—The sword and its diminutive, the dagger, is not only the most ancient, but the most widely disseminated pure weapon, and that which has remained longest in use in the world. It has at different times, and by various nations, been made of divers substances,—stone, wood, bone, copper, bronze, and iron, of all of which we possess examples in the Museum. In shape, the most primitive sword was sharp-pointed, double-edged, and used for stabbing and thrusting, as shown in all our bronze specimens, and not a heavy-backed, single-edged, cross-hilted weapon for hacking and cutting, as the more modern kinds, forged from iron. Although not nearly so numerous as the celts, our collection of swords and daggers is very rich, amounting together to 282 specimens, which are arranged

Vallancey's engravings were taken from a collection of very faithful drawings by Gabriel Beranger, possibly those made for the Right Hon. W. B. Conyngham's intended Atlas of Irish Antiquities, to which he invited the attention of the Academy in 1791. They afterwards passed into the possession of the late Austin Cooper, to the courtesy of whose son, the Rev. A. Cooper, I am indebted for the loan of them. They have enabled me to identify several articles now in the Academy. Vallancey only engraved a portion of them. Beranger was a French artist resident in Dublin at the end of the last century.—(See Gilbert's History of Dublin, vol. iii., p. 360.)

Referring to the celt moulds described at p. 392, it may be remarked, that in 1788 the Rev. Mr. Hamilton, F. T. C. D., exhibited to the Committee of Antiquities a bronze celt in its stone mould, stated to have been found in Ireland.

on Trays from U to HH, at the commencement of the Western Gallery, and in Rail-case O. The Irish term for a sword is Claidheamh, a generic word applicable to all forms of this weapon. The sword-blades present three well-marked varieties,—the leaf-shaped, both long and short; the straight-edged rapier, both narrow and triangular; and the large, broad, round-pointed, and occasionally curved or soythe form. It is remarkable that although there are representations of celts on our sculptured crosses, the swords of the combatants figured thereon are invariably of the iron pattern, long, straight, round or angle-pointed, and cross-hilted, as if the bronze celt had remained in use after the introduction of the iron sword.

There is no mention made in our authentic published annals and histories of bronze swords; the introduction of such weapons was probably pre-historic, and they very likely continued in use until the general employment of iron, and even for long after; for it is not likely that a "trusty blade" of fine bronze, beautifully balanced, and with a highly decorated and gold adorned handle, would ever have been broken up and re-cast, to turn the metal to other purposes. A greater number of bronze swords, and of greater variety, have been found in Ireland than in any other part of the British isles. A large number of those in the British Museum are Irish. The iron swords found in Ireland are chiefly modern, and the oldest specimens which we possess are evidently Scandinavian.

Among the presents made by the chief Kings of Erin to their dependent princes, as the stipends for the tributes of oxen, swine, escort, and refreshment, &c., as stated in the Leabhar na g-Ceart, there were vast numbers of swords and shields. Thus the King of Casheal gave the Prince of Cruchan 100 swords; bestowed on the Prince of Ailach 50, and on the Lord of Tulach Og, 30; to the King of Uladh he gave 100 swords; 30 to the King of Taimar, and 40 to the hero of Gabhran, or Ossory; and so in like proportion from each of the monarchs of

Erinn to their dependant chieftains.\* In the particulars of these weapons recorded in Beanan's poetic description of the tributes, we read of "swords for wounding; for all strength; fit for war; swords imported from afar; swords for the maining of hosts; bright swords; polished swords of battle; slender swords; keen-edged swords; swords in their scabbards; with razor edges; beautiful swords of shining lustre;" beside other forms to be referred to hereafter.

The bronze swords appear to have suffered less from oxidation than the celts, and consequently the colour of the metal in its present state is generally lighter than that in the latter but older implements. Of those examined by Mr. J. W. Mallet, two were found to contain less tin than the generality of bronze celts; one contained 3.37 per cent. of lead, and only 8.52 of tin; but in another there were found above 11 per cent. of tin. Further and more extended analyses of the composition of the metal employed in the formation of our bronze swords is, however, required to enable us to form any well-grounded opinion on the subject. The edges of most of those swords are in fine preservation, as if they had never been hacked, and were only used for stabbing. To exhibit the original colour of these weapons, four of them, Nos. 57, 58, 59, and 60, on Tray x, have been cleaned, and when compared with the bright bronze already described, will be found to present more of the red hue of the copper than the golden lustre observed in celts and spears. With few exceptions, we do not find on the swords the same smooth patina or remains of a crust or lacquer, observed on several celts, but a ferruginous deposit is not uncommon (see page 394). Several of the short curved swords and battle-axes are copper.

<sup>\*</sup> Dr. O'Donovan, in a note to Leabhar na g-Ceart, says, the word claideam or cloideam is evidently cognate with the Latin gladius, and adds: "It is remarkable that Giraldus Cambrensis makes no mention of the sword among the military weapons used by the Irish in his time. The mention of the swords in this work as among the weapons presented by the kings to their chieftains shows the inaccuracy of Cambrensis." See p. 32.

The first variety is of the pure Grecian type, formed apparently on the model of the leaf of the aloe or agave; narrow near the handle, and gradually swelling in breadth to within a third of the point,—having a thick solid ridge or midrib running up the centre of the blade, and a fine sharp edge on both sides from hilt to point, which latter is spear or lancet-shaped; all cast in a mould, and not bearing any marks of the hammer, the grinding-stone, or the file. This va-

riety exhibits some minor differences in the shape of the handle-plate to be explained hereafter; but the most ostensible distinctions between it and the second are shown in these two illustrations, drawn one-fifth the natural size, and here placed in juxtaposition, to show the difference in shape and relative proportions of the best-marked types of the leaf-shaped and rapier forms of bronze swords. The first, Figure 313. is drawn from a very fine broad leaf-shaped specimen, No. 56 on Tray x, smooth in the blade, with the handle-plate perfect, having eight rivet-holes, and deeply notched at the lower portion of the blade for catching the hilt. It is 221 inches long, and 2 wide in the broadest part. It was -- Deposited by Sir Benjamin Chapman, Bart.

Figure 314 is, by permission of Lady Staples, drawn from the most perfect specimen of bronze rapier blade ever found in Ireland, and certainly the finest article of its class of which we have now any record in Europe. It is 30½ inches long,

21 across the widest portion of the flat Fig. 314

handle-plate, and five-eighths across the centre of the blade, where the thick midrib forms with the side edges the accom-

panying figure in section, drawn the size of the original. It was found in a turf-bog, in the townland and parish of Lissane, county of



Fig. 815.

Derry, on the property of Sir Thomas Staples, Bart.\* 66 on Tray x, now 13\frac{2}{3} inches long, 2\frac{7}{3} wide in the handleplate, and I across the middle of the blade, is the fragment of a rapier which was evidently much larger than that figured above, and was in all probability 40 inches in length (see p. 474). All the swords in our collection are beautifully balanced; many of them, especially those of the rapier variety, are so tempered that they may be bent considerably, and will afterwards spring back to their original straight form.

The Leaf-shaped Swords present two varieties,—the broad and the long; and the six following cuts, drawn one-sixth the size of the originals (except Fig. 317, which is one-fifth), represent typical specimens of both these kinds. from No. 45 on Tray w, has a thick flat midrib and grooved side bevels, or feather-edges, with hilt notches in the base of the blade. The handle-plate, which is slightly defective, has four rivet-holes, and has been welded by an over-lap. It is 184 inches long, by 1 wide in the broadest portion of the Fig. 317, drawn from No. 43 on Tray w, represents blade. a smooth bright yellow sword-blade, 17# inches long, by 12 broad, rather square in the handle-plate, which is 21 in length. It is perfectly smooth in the blade, sloping gradually from the slight midrib to each edge. The handle-plate, which is flat, short, and has four rivet-holes, descends from the blade beneath an angular shoulder, and in this respect differs from all the other swords in the Collection; but Nos. 41, 42, and 68, slightly resemble it. The four next cuts represent sword-blades of the second variety, gradually increasing in

<sup>\*</sup> Mr. Wilde has presented to the Academy, by permission of Lady Staples, a model of the bronze rapier alluded to above.

length, and lessening in breadth of blade, like the leaf of the iris; also wanting the central stem or midrib, in place of which a slight fulness traverses the middle of the blade from hilt to point. Figure 318 is drawn from

a very perfect sword-blade, No. 5 on Tray

U, 23½ inches long, including the handleplate, which is 4½; it is 1½ wide in
the centre of the blade, which is
margined by a grooved
feather-edge. The handle-plate is nearly per-



Fig. 316, No. 45. Fig. 317, No. 42. Fig. 319, No. 5. Fig. 319, No. 2. Fig. 220, No. 28. Fig. 321, No. 40.

fect, and perforated with four rivet-holes for the attachment of the bone or horn sides to. There are also several indentations where the metal ran into the rivet-holes in casting. It is deeply

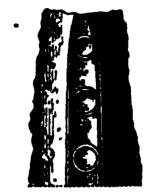
notched for fixing the hilt to the blade. The edges of this, and most other swords in the Collection, are remarkably sharp, and of the finest temper. Fig. 319, from No. 2, on Tray U, is a very perfect specimen of long leaf-shaped sword, without midrib, but having a narrow grooved feather-edge with a ribbing running round the margin of the blade, except where deeply notched for the hilt; the handle-piece is thin and flat, enlarged at the small extremity for the attachment of the pommel, and perforated with twelve small rivet-holes, in nine of which the bronze pin-like rivets still remain. It is 26 inches long by 11 across the widest portion of the blade, and 25 at the junction of the handle-plate. Fig. 320, from No. 38, on Tray v, shows the still further decrease in breadth, and increase in length of the blade, which is surrounded by a bevel edge. It is beautifully cast, and is one of the longest perfect swords of its kind in the Collection, 28 1 inches long, with eight rivet-holes in handle-plate, in five of which the stout bronze pins still re-It is said that when this sword-blade was found in the county of Limerick, about twenty years ago, a portion of the gold mounting was attached to the handle-plate.\* Fig. 321 is drawn from No. 40, on Tray V, the longest and one of the most perfect sword-blades of this description which has been discovered in Ireland. It is 29\frac{1}{2} inches long, of which the blade is 26%, and 1% broad. It is a beautiful specimen of ancient casting, having a keen edge, and a raised rib on the inner margin of the bevel; the blade is deeply notched above the handle-plate for catching the metal hilt: there are five rivets in the broad handle-plate, with counter-sunk extremities, as if for holding jewels or enamel. The total number of leaf-shaped swords of both descriptions, either perfect or fragmentary, on Trays in the Collection, is 90.

While the foregoing illustrations afford us a clear idea of

<sup>\*</sup> See Mr. Clibborn's letter, signed H., in "Saunders's News-Letter," for 1st January, 1850.

the best-marked varieties of these two forms, there are some exceptions worthy of note. Figure 322 is drawn one-half the size of the original, from a portion of the fragment of a curiously decorated blade, 4½ inches long, placed as No. 275, in

Rail-case o. The sides are symmetrical, and the raised lines and circles formed in casting are in strong relief. It is the only specimen of its kind yet noticed in Ireland, and may have been a sword of office. The only article



on which we observe any approach to the Fig. 222. No. 275. same form of decoration is the small narrow rapier sword, No. 67, on Tray x, in which a row of minute elevated rings extends along the projection of the midrib from the centre towards the point. No. 80, on Tray z, 22½ inches long, is a unique sword-blade of the long iris-leaf variety, curved edgeways like a Turkish yataghan.\* It is said to have been found with several others on an ancient battle-field in the Co. Westmeath. It is scarcely possible that this curve could have arisen from a defect in casting; if caused by fire subsequently, the bend is much more likely to have been towards the flat of the blade, in which manner those bronze swords, evidently subjected to great heat, warped, and of which No. 77 is a notable example. If not originally formed of this shape, it is difficult to understand by what force, either accidental or designed, this scimetar-form could have been given. Without, however, expressing a decided opinion on the subject, it is worthy of remark that in the Book of Rights, already frequently referred to, we read of both "curved swords of battle" and of "curved narrow swords."

Some of the leaf-shaped swords had been broken, and were in former times welded, both by fusion and by the addition of a collar of the metal, which encircles the extremities of the fragments, and of which we have good examples in the handles of

<sup>\*</sup> The handle of this and Nos. 40 and 79 resemble one another so closely as to lead at first sight to the belief that they are duplicates; but such is not the fact.

Nos. 27, 50, 57, and 81. In other instances the fragments have been joined either by brazing or with spelter; the junction in many of the former, and all of the latter, is evidently modern.

The four next illustrations represent the Broad triangular and the Long narrow Rapier swords, tapering from the heft to the point; with a thick central ridge; no large handle-plate, but, in lieu thereof, a thin sudden expansion of the blade, which was attached to a cast-metal handle, probably formed of one piece, and to which it was affixed by two or more strong rivets burred over it. In many instances the handle-plate was only notched for the passage of the rivets; and in some it was both notched and perforated, as shown in the accompanying illustrations. Fig. 323, No. 152, on Tray CC, is one of the smallest, but at the same time a very fine specimen of the broad-handled triangular rapier-shaped short sword; 12 inches long by 21 across the handle-plate, which is very wide compared with its other proportions; a well-cast midrib runs up It is very sharp-pointed, and only \$\frac{3}{4}\$ths of an inch the centre. wide across the middle of the blade. The metallic handle of this weapon must have had four rivets; two held the blade in its place by means of notches, and two—which still remain fastened it by passing through apertures. It was found in the River Barrow. Fig. 324, drawn from No. 62, on Tray **z**, represents a very beautiful short, broad, triangular blade, with both cast and engraved ornaments on each side; 105 inches long by  $2\frac{3}{4}$  wide. It is complete, but fractured near the point, and has four very large rivets in situ, the two inside ones are each five-eighths of an inch long, and the outer ones somewhat shorter, as if to accommodate themselves to the curve of the massive metal handle; the ornamentation across the base of the blade is graven in the same manner as that on the gold articles in the Museum. It was-Presented by the Shannon Commissioners. No. 63, on Tray x, is another very beautiful blade of the same class, and is similarly ornamented. Fig. 325, No. 65, on Tray x, 15\frac{2}{4} inches long, and 2\frac{1}{4} wide in the broadest portion of the handle-plate, has two large short rivets still remaining. It was obtained from Keelogue Ford and—Presented by the Shannon Commissioners.

Figure 326, No. 106, on Tray AA, is a beautifully cast specimen of the long rapier variety, thin, slight, and exquisitely sharp at both bevelled edges and at the point, with a flat midrib bifurcating below; 19 inches in length by 2' wide across the handle-plate, in which

Fig. 225, No. 159. Fig. 324, No. 62. Fig. 325, No. 65. Fig. 326, No. 106.

there are two semicircular notches for catching the rivets. It was found in the parish of Killeshandra, county of Cavan, and—Presented by the Board of Works. The largest perfect specimen of this variety of blade is No. 104.

The total number of sword-blades of both descriptions—the broad triangular and the long narrow rapier—now in the Academy, amounts to 35; but as all the sword forms merge gradually, first into short weapons for close combat, and then into the most diminutive dirk or stiletto, it is difficult to draw any precise line of demarcation between the sword and the dagger. This easy transition from the longest sword to the dagger of the same form;—the fact that no two of these weapons are duplicates, or were cast from the same mould;—as well as the circumstance of the very great variety of such weapons in this collection, lends support to the belief that there was an extensive manufactory of such articles in Ireland in very remote times. Before considering the question as to the mode of hefting, it is proper to describe the third variety, or the—

Broad Scythe-shaped Swords;—which are specially and peculiarly Irish, now amounting to as many as forty-one specimens, have been (except No. 271) arranged on Trays FF, GG, and HH. Thick, heavy, round-pointed, averaging 12 inches in length by 2½ broad at the base, and generally furnished with from two to four, and even more massive rivets, they must have been—whether attached to short metal handles for use in close combat, or affixed either spearways, or, like axes, to long wooden staves-most formidable weapons. Several of these are curved, and, as many are formed either out of red bronze or pure copper, it is probable that, like the celts of that material, they are of immense antiquity. They are all of a very dark colour, except such as are very thin, and made out of tin-alloyed metal. Some are thin and perfectly flat, except at the bevelled edges, as Nos. 232, 233; but the great majority have thick flat central stems or midribs, rising from the broad thin expansion of the blade for insertion into the cleft of the handle, but at top following the curve of the pointed outer edge.

Of the entire, 22 are of the true curved scythe-shape;

and these have all strong central elevations to afford additional strength. Although the points of some have been broken off, none of these blades are hacked or indented on their edges, showing that they were principally used for stabbing. The notion as to their having been attached to the sides or axles of chariots, like those attributed to Boadicea, derives no proof from an examination of these in the Museum of the Academy. The immense rivets, some an inch and a half in length, and nearly an inch across the burr, show that they must have been attached to massive metal handles; but as yet no fragment of any such has come to light. Like the two former varieties, they lessen in size until we find the form repeated among the daggers. The following woodcuts, most of which are drawn one-sixth the size of nature, present us with the best-marked varieties of this very remarkable ancient weapon. Fig. 327, from No. 232 on Tray FF, of yellow metal, very thin, in good preservation, and round at point, has a narrow bevel surrounding the edge, and four rivet-holes, in one of which the studlike rivet still remains. It is 127 inches long, by 27 wide across the handle portion, and 12 within an inch of the point. It was found in the county of Longford, and—Presented by Dr. D. Kelly. Fig. 328, from No. 248 on Tray GG, shows another form of the short, straight, scythe-shaped sword, thick and massive, slightly defective on both edges, with a strong oval midrib, a deep triple groove surrounding the margin, and three massive rivets, the head of each of which is nearly an inch across. It is 11½ inches long, by 2½ wide. The two next illustrations show the curved form of this weapon. Fig. 329, from No. 240 on Tray GG, smooth, dark-coloured, having a grooved feather-edge, and stout central stem like the foregoing, has also three rivet-holes in the handle-plate, in two of which the massive studs remain. It is 16 inches long, by 34 broad at the handle, and 21 in centre of blade; and was found with the six others following on this Tray, points downwards, 21 feet under the surface of a shallow bog, in making

the railway at Hillswood, near Woodlawn, parish of Kilconnel, county of Galway, in 1850. It was—Presented by G. W. Hemans, C. E. (see Proceedings, vol. iv., p. 565). Figure 330, drawn to a larger scale than the foregoing, from No. 271 in



Fig. 227, No. 232. Fig. 328, No. 238. Fig. 339, No. 240. Fig. 220, No. 271.

Rail-case O, is another specimen of the same type, narrower towards the point, which is slightly defective. In other respects it resembles No. 240, and, when perfect, was nearly 15 inches long. It is 3½ inches broad across the handle-plate, and 1½ measured over the middle of the blade. It has three rivet-holes, in two of which the rivets remain, and differ from all others in the Collection in having large conical washers each 1½ inch wide, between them and the blade. A similar form of rivet has been observed in some of the short bronze swords found in France and Germany. This blade has been—Deposited by the Royal Dublin Society. In a thin, flat, straight specimen, No. 233 on Tray FF, like Fig. 327, there are no less than five perfect, and two incomplete rivet-holes, some of which would appear to have been cut at different times

from the others,—possibly to strengthen the blade in the handle, or to re-adapt it to a new one.

Sword Moulds, except one now in Trinity College Museum, have not been found in this country; it is, therefore, questionable how our swords were made, but many were probably cast in sand. On the continent they are equally scarce, but a few instances of such articles having been discovered in England,—these now in the British Museum, and described in the Archæological Journal, vol. ix. p. 185. Models of these two English stone-moulds have been—Presented by Lord Talbot de Malahide, and will be found in the lower compartment of the central glass-case, Bronze III., Nos. 300 and 301. They were used for casting the narrow rapier variety, and have no marks for rivet-holes.

In the accompanying cut is shown the wooden model of a sword 20 inches long, found five feet deep in Ballykilmurry, a bog near High Park, Co. Wicklow, which was—Presented by James Westby, Esq., in 1850 (see Proceedings, vol. iv., p. 440). Near it was found some bog-butter, but no further indication to mark its age. Upon the side of the blade, and of a piece with it, there is a projection, as shown in the accompanying illustration. The use of this article is conjectural: if a toy,



Fig. 881, No. 234.

this raised portion would be an inconvenience; but if a model for a sand-mould, the metal might have been poured in through the aperture left by this projection. Not the least curious portion of this implement is the handle, which resembles some of the single-piece bronze sword-handles observed in different parts of Europe. See Mr. Clibborn's Exhibition Catalogue, page 129.

Handles—such as were affixed to our Irish sword-blades—may be described under two heads. The first was made up of several pieces of bone, horn, tooth, or hard wood, and of

metal; and which hefted all the leaf-shaped swords with flat, narrow handle-plates. It was composed of at least four portions—the two sides of the former material, and the hilt and pommel, of the latter; besides the decorations formed of thin plates of gold,—all held together by slender rivets. As each part depended for its position on the integrity of the whole, it is manifest that it could not have lain in the earth or water for any length of time without destruction of the animal or wooden portions, and subsequent general disintegration of the entire. Very many centuries, indeed, must have elapsed since the most recent of our bronze swords was deposited in those situations where discovered during the last fifty years. This will, in part, account for the circumstance that no vestige of a single fragment of any such article has yet been noticed in Ireland. It is only by a careful study of a great number of sword-handles in different collections that the antiquary can form a probable opinion as to the mode of hefting such articles.\* Great variety exists in the precise form of these handle-plates; most of the short broad-leaf swords, especially those on Tray v, terminate in straight T-like projections, while the ends of the long variety of the leaf-

Among the vast collection of Scandinavian swords, there are very few examples of blades with flat handle-plates like these under consideration; and those of that description in the Royal Museum at Copenhagen, and having leaf-shaped blades, are, in all probability, Irish. In only one of these can any trace of the bone sides be detected. As we proceed northward, this special form of sword becomes scarcer.

In nearly all the Danish swords the handles were composed of metal, and consisted of a semilunar collar, or hilt, which came down on the blade, and formed a crescentic ornament, which must have abutted on the scabbard. Instead of a flat handle-plate, the blade ended in a long narrow stem or tang, over which was run down a series of rings, or an open-worked plate, sometimes decorated with gold or niello; in many cases the hilt and handle-piece were made in the one casting. The pommel, or terminal knob, cap-shaped, and of either a round, oval, or diamond form at the top, was perforated; the end of the tang being riveted upon it, held all firmly together. The interstices of the rings, or the thin open work, or spiral collar, which occupied the space between the hilt and pommel, was filled with terra-cotta or a mixture of pitch or resin and fine clay. Gold wire was, in some instances, wound round

shaped sword, as shown by those on Tray  $\nabla$ , are either flattened out into thin square plates, as in No. 2, or cleft like No. 38, see p. 444. The number of rivet-holes is various, but generally consists of three sets, those in the lozenge-shaped enlargement, between the handle-plate and blade, and which served to fix the lunette metal hilt;—they vary from

wanting. To these there are a few exceptions, as in No. 43, Fig. 317, and those of that description where the handle was probably formed altogether of metal. In others, instead of rivet-holes, there were oblong apertures, as shown in the accompanying illustration drawn from No. 1, on Tray  $\nabla$ .



Fig. 332 No. 1.

In size as well as shape the handle-plates, when perfect, exhibit great diversity; and it is only after completing the handle, even in imagination, that we can form an opinion as to the magnitude of the space to be occupied by the closed hand. That they were very much smaller than those of modern swords with guards, and used for cutting as well as thrusting,

the handle, and even niello was employed. These swords are so faithfully depicted in that magnificent work, the Atlas for Nordisk Oldkyndighed, published by the Royal Society of Northern Antiquaries, and are also so well shown in the last edition of Worsaaes's Nordiske Oldsager, as not to require further description. I am much indebted to the venerable W. Thomsen, of Copenhagen, for a small sword-handle answering to the foregoing description. Upon taking that article carefully asunder, it has afforded me still further instruction as to the mode of hefting the most common as well as the most beautiful variety of Danish sword. It is now among the collection of Scandinavian Antiquities in the Royal Irish Academy, where may also be seen another bronze handle of a sword or dagger, with a spiral middle piece. I am also indebted to M. Hildebrand, the able Curator of the Museum of National Antiquities at Stockholm, for drawings of such swords in that collection as were necessary for the elucidation of this subject.

Besides those mentioned above, there are, as already specified, a few blades with thin flat short handle-plates, of which No. 117, in the Nordiske Oldsager, resembles No. 48, in R. I. A., see Fig. 817, p. 444. In other Danish swords the flat handle-piece has a short stud-like tang at the end for riveting over the pommel; and in

there can be no doubt, yet some of them are large enough to receive a moderate-sized hand. Without discussing the generally received opinion that the men who used such swords had very small hands, like some of the Asiatics of the present day, the mode of using these weapons must not be forgotten: —they were employed for stabbing and fencing, in which the middle, ring, and little fingers alone grasped the handle completely, while the thumb and fore-finger passed upwards on each side of the blade, fitting into the curved hollows of the hilt —and not, like the method of the cavalry soldier of the present day, who, when about to deal a heavy blow, grasps his weapon with the closed hand, which must occupy a space of about four and a half inches. Among the Scandinavian swords there are several with handles longer than those of many modern swords; and it is remarkable that the size of the blade bears no proportion to that of the handle: some of the largest and heaviest having short though well-balanced handles.

The short swords and daggers were, moreover, probably held points downwards, with the thumb resting on the pommel, in the way in which the modern Spanish stiletto and the

some a sort of frame-work, or cradle, passed down over the sides of the haudle, and held the bone or horn portions together. One of these cradles, recently discovered in Denmark, is covered with plates of gold, decorated with embossed circles, like those seen upon some of our oldest gold ornaments. The end, or pommel, of these flat-handled swords, consists of a thin plate, each end of which terminates in a spire turned inwards, and in some cases joined by a short bar. Such a pommel, fastened by two rivets, would specially suit those sword-blades in the Academy's Collection, Nos. 38 and 77, cleft and perforated at the extremity.

There are no swords in the Scandinavian collections corresponding to our long rapier variety, and, therefore, no handles cast of solid metal without a perforation; but there are a few broad triangular dagger-blades, with strong stout rivets, like those in our Collection, to which such handles would be applicable. The ornamentation upon all the true Danish swords is most distinct, and consists chiefly of the continued spiral so characteristic of early Danish art. In only one instance has a scabbard for a bronze sword been discovered: that specimen, found in sinking a foundation some years ago in the city of Copenhagen, is formed of wood covered with leather, and mounted with bronze.

Indian creese are used; and did not, therefore, require a greater space in the centre of the handle than could be encircled with the two middle fingers.

The handle-plates in our Irish swords are more frequently deficient than the points; and from the number of instances in which they were mended by welding, or having a collar or socket of new metal run round them, it is evident that this part of the weapon was particularly liable to accident, possibly from the want of that support afforded by the metallic rings, the composition within which gave lightness with stability and balance to the Danish swords. When fractured, the blade was again placed in a mould with the broken end heated, and fresh metal run round it: see also page 447. This addition, as we see in the cleaned specimens, is usually of a redder colour than that of the original, probably from containing more copper, in order to insure greater toughness. When the pommel was completed, the average length for the finger grasp was about three inches.

In some of the finest swords, principally those of the long leaf-shape, a triangular elevation, swelling out at the base of the blade, passes down on the handle-plate. See, in particular, the beautiful examples in Figs. 318, 320, and 321, page 444, and the two fragments, Nos. 77 and 80, on Tray z. The side edges generally rise into slight flanges above the level of the handle-plate; and, judging by analogy, this is the place to which gold overlaying was adapted.

In reconstructing the handle, our greatest difficulty arises from the form of the pommel,—unless we adopt that afforded by the Celto-Scandinavian swords in the Copenhagen Museum, already described in the note at page 455. A metal framework, or cradle, including the terminal knob or boss, may have been employed in the formation of some of these handles, like that referred to at page 455, or those represented by the models of continental swords from the Mayence Museum, placed alongside the Danish collection. It certainly is

remarkable that as yet no portion of the metal fragments of such handles has turned up in Ireland. Several other minor particulars concerning the handles of bronze swords have been noted, and will be found in the detailed Catalogue of these articles.

Many of these sword-handles afforded work for the jeweller as well as the armourer. In the Book of Rights, already frequently referred to, we read of "a sword adorned with a gold hilt," forming part of the stipend granted by the King of Caiseal to the King of Deise; and again, of "a sword with stude of gold." On the sword No. 38, Fig. 320, as already stated at p. 445, several remnants of the gold decoration were found. On a sword discovered in the Bog of Cullen, county of Tipperary, in 1748, and described by Governor Pownall in his article in the Archæologia, vol. iii, p. 362, it is said that on the handleplate was "a thin piece of gold, which weighed twelve pennyweights nine grains." And in 1751 was also found "such another weapon, on the rivets of which was a plate of gold, which covered one side; at the end of which was a thing like the pommel of a small sword, with three links of a chain hanging out of it: all the gold together weighed three ounces, three pennyweights, eleven grains." Another similarly described weapon was found in 1753; and, adds Walker, "golden-hilted swords have been found in great abundance in this kingdom. The annalist of Innisfallen describes Brian Boroimhe, exhorting his soldiers before the Battle of Clontarf, with a crucifix in his left, and a gold-hilted sword in his right hand. Solinus relates that the Irish formed the handles of their swords from the teeth of large sea-monsters, which they polished to a most beautiful whiteness." - See Memoir on the Armour and Weapons of the Irish, page 118. In some specimens, as already stated at page 445, the extremities of the rivets are countersunk.

With respect to the second variety of sword-handle, for attaching to blades of the long triangular or rapier-shape, pro-

vided with stout studs or rivets, and broad nut-like burs or washers, we have less difficulty, as two such articles, each formed of a solid metal casting in one piece, have been discovered entire in Ireland, and are shown in the subjoined illustrations. Fig. 333 has been engraved, one-third the size, from a narrow, slender, small sword of the rapier variety, in the choice and valuable collection of Dr. Petrie, who has gene-

rously afforded the drawing from which this cut has been made. It is hollow in the handle, and open at the pommel end, where it probably had a bone stud, and now measures 213 inches in length, and 3 wide across the lunated hilt. was found many years ago in the county of Tipperary. Fig. 334, drawn twothirds the size of the original, represents a very beautiful short dagger, quite perfect in the handle portion, now No. 272, in Railcase O. where it forms a portion of the deposit recently made with the Academy by the Royal Dublin Society; although belonging to the dagger variety of weapon, it is here introduced for the sake of explaining the construction of the handle. Fig. 339. It is highly orna-

Fig. 834. No. 272.

mented, both in casting, and also by the punch or graver. The blade partakes of the character of the broad triangular weapons, figured at page 451. This article is now 6 inches long; the study are riveted with conical washers.

Handles of the same description have been found attached to both Frankish and Roman swords, several fine specimens of which are now in the Museums of Mayence and Rouen. In those, the size of the handle is not always in proportion to the blade. The bronze mould, consisting of the two sidepieces and a core, recently found in Italy, and now in the Museum of Munich, was evidently employed for casting solid metal handles for swords of this third variety, which was very widely distributed throughout Europe. The same description of metallic, single-piece, cleft and riveted handles, were, no doubt, affixed to the majority of these broad blades on Trays FF, GG, and HH, some of which have been figured and described at page 451; but several of them were probably used as battle-axes, and hefted in the manner described at page 492. In the continental blades of this class the handlegrasp is straight and cylindrical; see the drawings and models of those in the Museum;\* and they are fastened, not by two or three large studs, but by a semicircular row of rivets, sometimes ten or twelve in number.

Strange as is the circumstance that no remains of the separate metallic portions of the handles of leaf-shaped swords have been found in Ireland, it is still more difficult to account for the fact of so few of these solid handles—some of which must have been nearly an inch thick where crossed by the rivets—having been recovered. It would be absurd to suppose that these large blades had been adapted to wooden handles; for, independent of the discovery of metal hefts, for a similar description of implements, both here (see Figs. 333)

<sup>•</sup> See, in particular, the full-sized coloured drawings from swords in the Rouen Museum, presented to the Academy by G.V. Du Noyer, Esq.; also the beautiful models of swords from the Mayence Museum, among the collection of casts recently procured by the Academy; see likewise Lindenschmit's Catalogue, referred to at p. 251. Zweites Heft, Tafel IV. Next to our country, Germany, France, and Switzerland, are the localities where such broad dagger-blades have been found in greatest abundance; see also Mittheilungen der Antiquarischen Gesellschaft in Zurich, B. i.

and 334) and on the Continent, the shape of the hammered-out burrs, or exposed ends of these massive rivets, shows that this must have been effected over metal apertures, like the rivets in a steam-boiler, and not on any substance less resistible than metal. These broad or triangular blades, straight and curved, have been arranged along with the swords with which they are assorted, and the daggers into which they finally merge, where these latter retain their form in a diminutive size.

The Scabbard, or sheath, in Irish, Truaill, of these bronze swords was (as shown by the specimen found in Copenhagen) made of wood, covered with leather, and bound with bronze, having usually a four-sided ferule at the end, terminated by a circular button knob. Although the sheaths of iron swords of the Saxon and Danish periods have been found in England, no complete scabbard for a bronze sword has yet been discovered in the British Isles. All those articles belonging to ancient bronze swords have been arranged in Rail-Fig. 835, No. 288, case O. The small ferule, No. 283, here figured one-half the natural size, is the extremity of the scabbard of an antique bronze sword of the rapier variety, and it corresponds with the one found in Copenhagen (see note p. 455); but it would only serve for the sheath of the narrowest-pointed blade. By the three following figures are represented articles which,

<sup>\*</sup> Material having been taken as the basis of the primary arrangement of the Museum, many articles of the same species and variety must be grouped together, although differing widely in chronological order. Oecasionally we meet with a combination of two or more different materials, as in the handles of stone and metal celts; the gut-tying of flint arrows in wooden shafts; the different substances used in the construction of harps; and the enlaying with enamel, and decoration with glass or jewels, pins, brooches, or other personal ornaments. Each article has, however, been arranged under that class of which the substance of its principal material was composed. Therefore, the fragments of brass handles or ferules of iron swords have not been enumerated in this section, although several are of considerable antiquity, but will be described under the head of Iron Swords and Daggers, &c.

as well as ferules to the scabbards of our broad-leafed swords; although differing widely in shape, they were evidently used for the same purpose, are composed of a similar description of

thin antique bronze, and were found under circumstances that leave no doubt as to their great antiquity. Figure 334, from No. 284, shows, the natural size, a small hollow capsule, indented and perforated above the convex edge, for affixing it to the end of the wooden sheath; "found in the railway gripe

Fig. 336. No. 284.

at Cloonmore, near Templemore."—Presented by the Board of Works: see Proc., vol. v. page 417. In Fig. 337, one-third the size of the original, which is 4 inches long, the extremities

are pointed and prolonged into a boatshape. The indentations on the sides mark the overlapping of the wooden portion of the scabbard which was fastened to it by two slender rivets,



Fig. 387. No. 284.

so that the ends projected about an inch on each side. It was found in Keelogue ford, and—Presented by the Shannon Commissioners. In No. 288, Figure 338, which, although

now slightly defective in one end, was originally 7½ inches long,—we find the extremities prolonged still

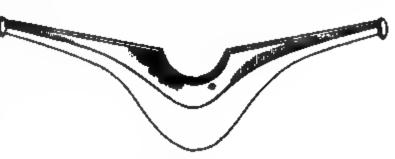


Fig. 338, No. 288.

further, and terminating in small buttons. These latter most probably projected 2 inches beyond the line of the scabbard, which possibly spread out at this part, like those of some Roman swords figured on ancient sculptures. There are two specimens of the second, and three of the third variety of this

description of ferule, in Rail-case O; see page 487. They are all exceedingly light, and of fine yellow bronze. we reflect on the mode of suspending the ancient broad-leaf sword high up on the thigh, not like the modern trailing long sword, it will be seen that these projections would be less in the way of the wearer than might at first sight appear. small crescentic piece of yellow metal, No. 290, described in the Proceedings, vol. vii., page 160, would also seem to have been a scabbard end, but for a different form of sword. The lunetted hilt raised over the level of the blade prevented the sword passing down too far into the scabbard.

Daggers,—serving occasionally as scians or knives, like the Highlander's dirk,—are, in use and generally in form also, but miniature swords; a great number, however, of the small bronze weapons in the Collection differ materially from the swords in their mode of hefting—being socketed like the The dagger, in Irish, Daiger or Scian, as represented by the specimens in the Collection of the Royal Irish Academy, may be divided into five varieties, the blades of all which have their representatives among the swords.

1. The diminutive leaf-shaped and rapier-swords; the latter form reduced to only a few inches in length, and in breadth occasionally as narrow as the most slender modern stiletto, with broad, flat handlepieces fixed in metal hefts by two or more The flat handle-plate is without aperrivets. Several such weapons may be seen tures. on Trays BB and CC, of which the accompanying illustration, Fig. 340, is a good type. It is drawn from No. 156, which is 10 inches long, and only one-half wide in the middle of the blade: see details at page 480. Fig. 339, from No. 170, on Tray DD, is a leaf-shaped No. 170, dagger-blade; 87 inches in length by 18 broad in the centre

of the deeply grooved blade.

2. The broad triangular-sword form,—varies in shape from that represented, one-third the natural size, by Figure 341, from No. 249, on Tray HH, with convex edges, --- to No. 190, on Tray DD, Fig. 342, a thin, angular blade, concave on the margin, and also drawn one-third the size of the original. The former, which is remarkably sharppointed, has a bevelled edge, and two stout rivets in the thin handleplate; it is 61 inches in length by 21 broad; and No. 191 is al- ( most a counterpart of it. latter, of bright-yellow metal, is Fig. 841. No. 249. 4½ inches long by 2 wide at the base, has four rivet holes, and a broad, flat midrib. Of the same description of weapon are the three following illustrations. Figure 343, from No. 250, on Tray EE, is a small, thin, flat, angular dagger-blade, brassy in colour, with four

small rivet-holes, and decorated all over the surface of the

flat midrib with a series of dotted lines. It is 4 inches long

by 1 in width; was found at Loughran's Island on the

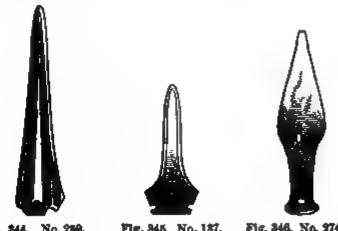


Fig. 344. No. 250.

Fig. 845. No. 187.

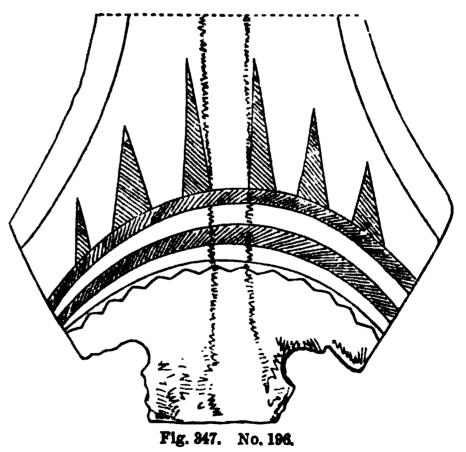
Fig. 346. No. 274.

Lower Bann, and-Presented by the Board of Works. No. 159, on Tray Co, shown by Figure 344, is a triangular,

slender dagger-blade, one of the most perfect of its kind in the Collection, formed upon the model of the scythe-shaped swords in every respect, and showing how they were represented in miniature by the weapons of this variety. It is notched for rivets in the handle-plate, is rather thick towards the point, and is traversed by a broad midrib margined by linear elevations. It is 8½ inches in length, and 1½ across the base. The third illustration, Fig. 345, from No. 137, on Tray co, is a rather remarkable and rare form of the short, triangular blade; perfectly flat, except the feather edge, and only 51 inches long by 17 across the base. It was—Presented by Lord Farnham. Of the same variety of triangular weapon is the dagger-blade, Fig. 346, from No. 274, in Rail-case o, with a metal handle-plate, terminated by an oval button; 7½ inches long, and 12 broad. It has two apertures; the lower was probably for passing a rivet through, for fixing the lateral hefts of bone or wood. This unique and very ancient weapon was found deep under the surface of the ground in the Yellow River, townland of Creevy, near Ballinamore, county of Leitrim, and was-Presented by the Board of Works. Among

the weapons of this variety, and of which it is a typical form, may be classed the beautiful perfect dagger with its metal handle, No. 272, figured and described at p. 458.

Besides the cast and graven decorations exhibited upon several of our short swords and daggers,



as shown in several of the foregoing illustrations, the annexed cut, drawn the natural size, from No. 196, on Tray DD,

presents us with a form of ornamentation peculiarly Celtic, upon a short, broad, triangular dagger-blade, 6# inches in length.

3. The socketed variety—in which the metal portion formed about one-half the length of the handle, the pommel part being made of either wood, bone, or horn—numbers thirty-three, which are all arranged on Tray \*\*\*, from No. 199 to 231. In length they vary from 3\frac{2}{3} to 11\frac{1}{3} inches, and are well represented by the five following illustrations. They are nearly all leaf-shaped in the blade, into which the socket

passes up for a short distance in many specimens. In shape the socket is either circular, oval, or quadrangular, and is in





Fig. 348, No. 318. Fig. 349, No. 208. Fig. 350, No. 220. Fig. 351, No. 228. Fig. 352, No. 228.

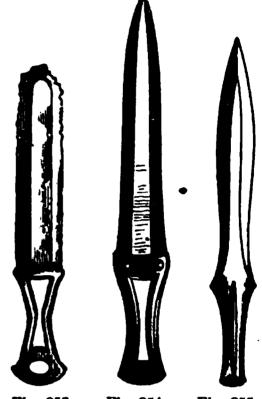
many instances decorated either in the casting or by hand. The socket is traversed by a rivet, the apertures for which pass either from front to rear, or from side to side, as described in the details of these articles at page 483. Fig. 348, from No. 218, represents a socketed dagger of the simplest form, leaf-shaped in the blade, with bevelled edges; side rivets, socket compressed in the middle; it is 88 inches long;

was found in the Shannon, and—Presented by the Shannon Commissioners. Fig. 349, No. 208, is peculiar in shape, having an oval socket with a bell mouth and decorated margin, with a rivet-hole in front; the blade is triangular, with a deep groove running round it within the feather-edge; it is 5% inches in length. It was found sticking in a human skull in Drumona Bog, county of Armagh, in 1816. Fig. 350 presents us with a dagger-blade of somewhat the same variety as the foregoing, but less decorated, and found fixed upon an ancient yew handle in the Bog of Aughrane, near Athleague, county of Galway. It is 81 inches long, of which the blade is 41, and was—Presented by Denis H. Kelly, Esq. Figure 351, from No. 229, represents a very fine specimen of long dagger-blade with broad bevel-edge, and raised dice pattern on centre of socket; 10½ inches long, and here shown onefourth the natural size. It was found near Headfort, county of Galway, and—Presented by J. M. St. George, Esq. (see Proceedings, vol. vii. p. 274.) The last illustration, Fig. 352, drawn one-fourth the actual size, from No. 228,—long, narrow, leaf-shaped, with midrib and bevel edges, has a foursided socket, ending in a lunated projection, like that of a sword-hilt. It is 107 inches long, was found in the river near the site of the old bridge at Banagher, and—Presented by the Shannon Commissioners.

4. This variety has only two representatives in the Collection, both of which are attached to Tray DD, and here shown one-sixth the natural size. Their distinguishing characteristic consists in the open-work metal handle, which is of a piece with the blade, and into which was probably inserted originally a decorated pieces of bone, wood, or horn. The first, Fig. 353, is 9½ inches long, of which the handle is 3½; the blade, flat, with broad, bevelled edges, is 1½ wide. It was found in the Dunshaughlin crannoge, and—Presented by Mrs. Rothwell, of Rockfield, county of Meath. The se-

cond specimen of this class, Fig. 354, is the finest example of the fourth variety which has been discovered, and has been long known to Irish antiquaries, having been figured and described by Vallancey in 1784 (see *Collectanea*, vol. iv., plate

xi., fig. 4), who properly described it as "cast in one piece, the rivets being either ornamental or to stop against the top of the scabbard," p. 61. Its total length is 11\frac{3}{4} inches, of which the handle is 4; the blade has broad, flat bevels, and measures 1\frac{1}{4} across its centre. The flat, central portion corresponding to the midrib in other specimens, is not similar on both sides. The casting of the inner edge of the handle-plate is very rude. This article was drawn by Bergager.



This article was drawn by Beranger, Fig. 853. Fig. 854. Fig. 855. and has also been figured in Gough's edition of Camden's Britannia, in 1789.

5. Consists of five specimens, numbered from 162 to 166 on Tray DD, with long sword-like metal handle-plates, having ridges or raised narrow flanges on each side, and terminating in thin, sharp, flat ends. These ridges were probably intended for affixing the handle-pieces of either animal or vegetable materials to. Figure 355, among the foregoing illustrations, is drawn from No. 166, the largest of these specimens, 10½ inches long, by 1½ wide, at the junction of the handle-plate with the leaf-shaped blade.

Most of the daggers, especially those of the short variety, served as knives for all the ordinary purposes of life, as well as offensive weapons. Of their sheaths we have no remains, except the leather one, No. 1, described at page 293. The following list of Trays furnishes the details of all the swords, daggers, and battle-axes in the Collection not specified in the foregoing descriptions.

## WESTERN GALLERY.—BRONZE, II.

END CASE.—SHELF I., Tray U, contains nineteen bronze broad leaf-shaped sword blades, both long and short; numbered from 1 to In size they vary from  $17\frac{1}{2}$  to  $26\frac{1}{2}$  inches, including the handleplate, which in several specimens is imperfect. No. 1, a long and very perfect leaf-shaped sword-blade, rather narrow above the handle, with a central midrib; no side bevel; broad edges to handleplate, which was probably covered with gold; and differs from all other specimens in the Collection except No. 94, on Tray X, in having longitudinal perforations instead of rivet-holes; it is 26½ inches long by 15 broad in the widest part of the blade (see Fig. 332, page 454). It was found, with several other antique articles enumerated in the Proceedings (see vol. v., App., p. 64), "scattered over the hard bottom of Toome bar, on the Lower Bann, at the outlet of Lough Neagh, between the counties of Derry and Antrim, at a depth of from 1 to 3 feet under the surface of the sand; adjacent to Toome Castle on the Antrim side."—Presented by the Board of Works. 2, very perfect (see Proceedings, vol. iii., App., p. 90); figured and described at p. 444. No. 3, plain, smooth, a slight rib within margin, hilt cleft, nine holes in handle-plate; 245 by 15.—Presented by F. W. Barton, Esq. (see Proceedings, vol. v., p. 407). No. 4, of bright Dowris-coloured metal, smooth and narrow above handleplate, which has four perforations; 23\frac{3}{4} by 1\frac{3}{4}; found with Nos. 1, 10, 11, 16, 32, 37, &c., and—Presented by the Board of Works. No. 5, plain, except slight ridge parallel to edge; figured and described at p. 444; when found, the rivets were in the handle. Found at Kildrinagh Ford, on the River Nore, near Borris-in-Ossory, Queen's County, with three other bronze swords, Nos. 48, 49, and 50, and two iron swords, two iron spear-heads, and three skulls, "within the space of 44 yards, resting on the hard gravel bed of the old river, with about one foot of loose material over them." The ford is in a direct line between two large raths, and other remains of ancient military works. At the ford were found the remains of a bridge of black oak.—Presented by the Board of Works. (See Mr. Frazer's description in the Proceedings, vol. v., App. p. 38). No. 6, deeply grooved and ridged on surface, peculiarly notched for hilt above

handle-plate, very sharp on edge, decorated with punched ornament; 23 by 1\frac{1}{4}. No. 7, smooth in blade, seven holes in imperfect handle-plate; 19\frac{3}{2} by 1\frac{3}{8}. Marked "Athy, county of Kildare." No. 8, plain, broad, curiously welded in blade by means of a collar which grasps the two portions; handle-plate imperfect; three rivet-holes; 22 by 13 (Dawson). No. 9, slightly curved in the blade, owing, perhaps, to a warp in casting; smooth, with a slight bevel surrounding the edge; handle imperfect; four rivet-holes; 20% by  $1\frac{1}{2}$ . No. 10, handle imperfect, notched for hilt, bevel edge, six rivet-holes; 20 by 1\frac{3}{4}. Found with Nos. 1, 4, 11, 16, and 32, &c.— Presented by the Board of Works. No. 11, plain, slightly corroded, wanting handle; 19½ by 1¾; found with Nos. 1, 4, 10, 16, and 32, &c.—Presented by the Board of Works. No. 12, perfect, slightly bevelled round edge, hilt notch, four large rivet-holes welded in centre, without intervention of a collar;  $21\frac{1}{4}$  by  $1\frac{1}{4}$ . No. 13, complete, but fractured across handle-plate; narrow; handle curiously grooved and notched for hilt; narrow bevel round edge; contracted above handle-plate; eight rivet-holes; 21½ by 1½.—Presented by the Shannon Commissioners. No. 14, plain, broad in blade, handle-plate imperfect, four small rivet-holes; 18½ by 1½. No. 15, plain, slight hilt notch, handle-plate deficient, two rivet-holes; 17½ by 1½ (Daw-No. 16, perfect, feather-edged, slight hilt notch, four rivetholes in handle-plate; 21 by 13; found with Nos. 1, 4, 10, 11, and 32, &c.—Presented by Board of Works. No. 17, remains of dark lacquer on blade, handle short and grooved like No. 13; hilt notched; 20½ by 1½. No. 18, perfect, bevel-edged, five large rivet-holes, slight hilt notches; 20 by 11; found in Keelogue Ford, and—Presented by the Shannon Commissioners. No. 19, of peculiar shape, blade narrow in middle, hilt notches, handle-piece plain, four rivet-holes; 20g by 1; found in the river at Carrick-on-Shannon, county of Leitrim, and—Presented by R. A. Gray, C. E.

SHELF II.—Tray  $\nabla$ , contains twenty-one sword-blades, chiefly of the long narrow variety, of the leaf-shaped pattern, but some are almost as short as daggers. In length they vary from  $14\frac{3}{8}$  inches (including the handles, which average 4 inches) to  $29\frac{5}{8}$ ; they have been placed horizontally, and are numbered from 20 to 40. No. 20, long and narrow, slightly beveled along edge, handle-plate broken; 22 inches by 1 in the widest part of the blade. "Found

on hard gravel, 5 feet under alluvium, in cutting new course for River Boyne, in townland of Rahin, Barony of Carbury, and county of Kildare."—Presented by Board of Works (see Proceedings, vol. v., App. p.liv.). No. 21, very narrow, like a modern sword blade, handleplate defective; 19 by  $\frac{3}{4}$ .—Presented by the Shannon Commissioners. No. 22, perfect, leaf-shaped, hilt notch, six apertures in handle-plate; 20½ by 1½.—Presented by Lord Lorton. No. 23, handle defective, blade fractured, sharp-pointed, strong midrib, two rivet-holes; 184 by 11, found at the Cutts on the River Bann, near Coleraine, with Nos. 36, 97, 124, &c., and—Presented by the Board of Works (see Proceedings, vol. v., p. 417. No. 24, polished, welded in two places, wants handle-plate, two rivet-holes;  $16\frac{7}{8}$  by  $1\frac{1}{8}$  (Dawson). Analyzed by Mallet as No. 8, who writes: "This specimen was made of a beautiful compact metal, very hard, and of a yellow colour, like that of No. 1 [celt No. 597, on Tray T, see p. 430], but a little deeper. Specific gravity, 8.819. It contains copper 87.07, tin 8.52, lead 3.37, with a trace of sulphur. No. 25, slightly imperfect at both extremities, welded in blade; 16\frac{3}{2} by 1\frac{1}{2} (Sirr). No. 26, complete, but fractured; notched for hilt; three rivet-holes; 19 by 11 (Sirr). No. 27, sharp-pointed, covered with ferruginous crust, handle-plate defective, five rivet-holes; 19 by 11. No. 28, complete, but fractured in blade; four rivet-holes, and raised longitudinal bars in handle-plate; 18\frac{3}{4} by 1\frac{1}{4}; found in the county of Cork. No. 29, narrow, imperfect at both extremities, four rivet-holes in handleplate; 15 by 1; "found 2 feet deep in hard clay and gravel, in excavation of Black River, townland of Clooncumbur, parish of Cloone, county of Leitrim."—Presented by the Board of Works. No. 30, short, narrow, edge slightly bevelled, handle-plate defective; 143 by 1; found in the county of Mayo (Dawson). No. 31, perfect, large, broad handle-plate cleft at extremity, eight rivet-holes, with six rivets remaining, grooved edges, cleft for hilt; 24% by 11/8; found at Keelogue ford.—Presented by the Shannon Commissioners. No. 32, perfect, point ground or worked down below level of blade for about four inches, broad handle-plate cleft for pommel, six rivets in situ;  $25\frac{5}{8}$  by  $1\frac{1}{8}$ ; found on Toome bar with Nos. 1, 4, 10, 11, 16, &c.— Presented by the Board of Works. No. 33, small-pointed; beveledged; imperfect in handle-plate, which is sunk below the level of the blade; nine rivet-holes; 24g by 1 g; found on rocky bed of Lough

Oughter, county of Cavan, and—Presented by the Board of Works (see Proceedings, vol. v., App., p. 60). No. 34, a fine perfect specimen, with broad handle-plate cleft at end; six rivet-holes; 26 by 1; found at Cootehall shoal on the Boyle Water, county of Roscommon.—Presented by R. A. Gray, C. E. No. 35, handle-plate defective, but having four rivet-holes; notched on side of blade; 23% by 11; found in 1847, about 3 feet under gravel deposit in bed of River Glyde, 1100 yards south-east from Derrycrammagh Ford, parish of Stabannan, county of Louth.—Presented by Board of Works. No. 36, perfect, except slight deficiency at end of handleplate; bevel edges, six rivet-holes, 27½ by 1½; found at Cutts, near Coleraine, see No. 23.—Presented by the Board of Works. No. 37, complete, except handle-plate, which is brazed in two places; blade also welded in two places within half an inch of each other, the line of junction being scarcely discernible; bevel-edged, hilt notches, four rivet-holes;  $26\frac{1}{2}$  by  $1\frac{1}{2}$ ; found with Nos. 1, 4, 10, 11, and 16, &c., at Toome bar.—Presented by the Board of Works. No. 38, complete, but fractured in broad cleft handle-plate; eight rivet-holes, edge grooved and bevelled; see Fig. 320. No. 39, perfect, welded in centre of blade, slightly grooved and bevelled, hilt notches, handleplate cleft, five rivet-holes; 29½ by 1½; found at Tumna on the Boyle water, Co. Roscommon, in the same townland with the hollow golden balls, of which there are six in the Academy's Collection, and —Presented by R. A. Gray, C. E. (See Proceedings, vol. v., App., p. 36.) No. 40, the largest and one of the most perfect sword-blades in the Collection, figured and described at page 444. See. Fig 321.

Central Glass Case, Bronze III.—Shelf I., Tray W, contains fourteen sword-blades, chiefly of the broad leaf pattern, several being wider than most others in the Collection. In length they average nineteen inches, including the handle-plates, and are numbered from 41 to 54. The three first specimens are of a totally different character from any of the foregoing, both in the smoothness and great breadth of the blade, and the flat tang-like shape of the handle-plate, as represented by Fig. 317, on p. 444. No. 41 has been mended in four places, is smooth and flat, except the central midrib; it is 18% inches long, of which the handle-plate is 2½, and is 1% broad in the widest part of the blade. No. 42, perfect, and similar to foregoing except in hilt-notches; 19% by 1%. Found at Ath-

lone—Presented by the Shannon Commissioners. No. 43, ditto, of bright yellow bronze, figured and described at p. 444. No. 44, perfect, of bright yellow bronze, light bevelled edge, handle-plate slightly corroded and similar to those on Tray U, decorated with cast ornament, forming a high flange round its edges; hilt notches, six rivet-holes; 19 by 18 across blade; found in the county of Cavan, and—Presented by Lord Farnham. No. 45, perfect, except in handle-plate; figured and described at p. 444. No. 46, perfect, smooth, nearly flat in centre of blade, shallow hilt notches, seven rivet-holes; 19½ by 1½; found with No. 47 at Keelogue ford. Both were—Presented by the Shannon Commissioners. No. 47, a fine, perfect specimen, slightly bevelled edge, hilt notches; handle-plate decorated with raised bars, possibly for attaching the ornamental but perishable portions of the handle to, and welded at lower third; five rivet-holes;  $20\frac{1}{8}$  by  $1\frac{1}{8}$  (see No. 46). No. 48, double groove, bevel edge, hilt notches, handle welded, five rivet-holes; 18 by 11; found with Nos. 5, 49, and 50, on Kildrinagh Ford, in the old bed of the River Nore, and although now hacked and broken, they were then quite even and sharp, and in No. 5, all the rivets were found in the handle-plate—Presented by the Board of Works. No. 49, narrow bevel edges, hilt notches, four rivet-holes; 18½ by 1½ (see No. No. 50, hacked on bevelled edge, handle-piece welded, hilt notches, five rivet-holes; 19½ by 1½ (see No. 48). No. 51, perfect, the broadest portion of the blade nearer the point than in any other specimen of this variety, hilt notches, seven rivet-holes; 18\frac{3}{2} by 1\frac{1}{3}; marked "Killala, county of Mayo." No. 52, perfect, narrow, bevel edge, handle-piece welded, six rivet-holes, two of them not through, hilt notches; 18½ by 1½. "Found in the crevice of a rock in the Yellow River, near Ballyduff Bridge, drainage district of Ballinamore, county of Leitrim." (See Proceedings, vol. v., App., p. 59). No. 53, imperfect in handle, corroded, flat central midrib; 17½ by 13 No. 54, perfect, plain, welded in centre of blade, four rivetholes; 183 by 13 (Dawson).

SHELF I., Tray X, contains thirteen swords of different shapes, four being cleaned in order to show the colour of the bronze; numbered from 55 to 67. No. 55, a good specimen of the long leaf-shaped sword-blade, wanting a part of the handle-plate, where it is incrusted with an irony deposit, two rivet-holes, one rivet remain-

ing, slight cleft for hilt; 23 inches long, and 2½ where the blade and shoulder-piece join.—Deposited by Sir B. Chapman. No. 56, a very fine specimen of the broad leaf-shaped sword; figured and described at p. 442. No. 57, a very graceful blade of leaf-shape, between the broad and narrow variety, slightly corroded all over like a frosting, exquisitely sharp on edge and point, slightly deficient at handle-plate, with about 2½ inches welded to it, six rivet holes; 19½ by 1½. No. 58, long and narrow, quite perfect, but corroded on surface, cleaned to show bright yellow colour of metal, hilt notches, five rivet-holes; 21½ by 1½; found near Ardcarne Church, barony of Boyle, county of Roscommon.—Presented by R. A. Gray, C. E. No. 59, cleaned to show the beautiful and very bright golden colour of the bronze; a thick strong sword-blade of the long narrow variety, grooved on surface, very round in edge, hilt notch peculiar, handle slightly imperfect, seven rivet-holes; 18 by 13; found a short distance from one of the mounds near Dowth, county of Meath.—Presented by W. Farren, Esq. No. 60, cleaned to show the golden colour of the metal; a short leaf-shaped sword-blade, deeply grooved on surface, bevel edge, brazed with yellow brass above handle: cast handle-plate of a redder or more coppery colour, overlapping end of blade across first rivet-holes, and forming a collar round end of blade, three rivet-holes, slight hilt notch; 17 by 13. No. 61, fragment of a broad leaf-shaped sword, wanting point, handle-plate imperfect, four rivet-holes; 14½ by 1½ (Dawson). No. 62, a short, triangular sword-blade, figured and described at p. 448. No. 63, a beautiful sword-blade of the short, broad, rapier variety, highly ornamented both in casting and by the graver, handle-plate defective, a thick midrib; remains of seven rivet-holes as if it had been frequently mended;  $14\frac{1}{2}$  by  $2\frac{3}{4}$ .—Deposited by R. D. S. No. 64, the short, thick, triangular blade of a dagger or small sword, mended, corroded on surface, two strong rivets, greatly resembling in handle-plate the specimen which follows; 13½ by 2½ across handle-plate (Dawson). No. 65, a very perfect blade, and in good preservation; a fine specimen of the short, broad, rapier variety, both large rivets remaining, thick angular midrib, narrow bevel edges; figured and described at page 448. No. 66, the lower fragment of a very beautiful, long, narrow rapier, and, probably, one of the largest of its kind, as it is

proportionably of much greater size than that figured and described at p. 442, which it greatly resembles in colour as well as shape; raised midrib and bevel edges, two thick rivets with very slight burrs; 13\frac{3}{8} long by 2\frac{7}{8} across handle-plate, see page 443. Judging of its original proportions by what now remains, this beautiful specimen must have been, with its handle, about 40 inches long. It was drawn by Beranger, and figured by Vallancey in 1784. See Collectanea, vol. iv., pl. 11, Fig. 10. No. 67, a perfect specimen of the long, narrow, rapier sword, handle-plate thin, bevelled at sides, tapering gradually from the handle to the point, ornamented somewhat like Fig. 322, see p. 448; two rivet-holes, one of them imperfect; 18 by 2\frac{1}{8} across handle, and \frac{3}{4} in centre; found with five others in a bog, about two miles north-west of Ballymahon, townland of Mulawornea, and county of Longford.—Presented by Dr. Kelly.

SHELF I., Tray T, contains six sword-blades, some with modern handles, numbered from 68 to 73. No. 68, a beautifully shaped blade, complete, but fractured towards the long narrow point, slightly corroded, high central midrib, short thin handle-plate with four rivet-holes, in two of which the rivets remain; 21 by 1\frac{1}{2}.—Presented by the Shannon Commissioners. No. 69, a perfect sword-blade, the antiquity of which has been questioned; the handle-plate may be comparatively modern, but the blade appears antique; it has a thick blunt edge, and two small rivet-holes; 20 by 11. No. 70, a perfectly smooth, and certainly modern sword-blade compared with the foregoing; believed to be a forgery, but perhaps of not so recent a date as is conjectured (analysis might determine the antiquity or modernness of the metal); nine rivet-holes; 19\(\frac{1}{2}\) inches long, including the handle-plate, which is 5, and 1½ at widest part of blade. No. 71, a short, leaf-shaped sword-blade, fitted into a handle, ingeniously carved from the palm of a deer's horn, so as to form a very perfect cross guard; total length 21 inches; blade above handle is  $15\frac{1}{4}$  by  $1\frac{1}{4}$ . This curious implement, which is one of the earliest donations to the Academy, was found in the county of Limerick, and—Presented by the learned Sylvester O'Halloran in April, 1788. (See MS. Minutes of Committee of Antiquities.) No. 72, a very beautiful long, narrow, leaf-shaded sword-blade, fastened into a straight yew handle by four small iron rivets, without a guard, and probably fashioned upon the style of the ancient sword-handle.

The last one and a half inch of top is curiously indented, as if by immersion in an acid, and thus resembling No. 32. The handle has been most ingeniously adapted to the blade; the whole implement is 25 inches long, of which the blade is  $20\frac{1}{5}$  by 1 broad. No. 73, a short, broad leafed sword-blade riveted to an iron flange, ending in a tang, to which is attached a modern wooden handle, with a large hilt and guard like that of a cavalry sword of the present day; the bronze blade is  $17\frac{7}{8}$  by  $1\frac{5}{8}$ . This implement was found in the county of Kerry, and—Presented by Maurice O'Connell, Esq., M.P.

SHELF II., Tray Z, contains twenty-one sword-blades of the leafshaped pattern, chiefly in fragments; numbered from 74 to 94. No. 74, fragments of a sword-blade and handle portion, with seven rivet-holes and two indentations, not through, hilt notches; 9\frac{1}{2}. Presented by Lord Farnham. No. 75, fragment of a leaf-shaped sword, ground to a dagger shape, handle-plate perfect; 71.—Deposited by Sir B. Chapman. No. 76, a fragment of sword-blade; 33; "found with No. 85 under about three feet of alluvial deposit, resting on limestone gravel, in the drainage cut through Brook Lodge Demesne, parish of Killeroran, barony of Tiaquin, county of Galway, in 1851."—Presented by the Board of Works. No. 77, the lower two-thirds of a very fine sword-blade, curled up on itself towards the handle, evidently from the action of intense heat; raised line within bevel edge. The handle-piece is very perfect, and resembles those of Nos. 40 and 80; perforated with eleven rivet-holes, that being the greatest number met with, except in No. 2; six of the rivets remain, and are countersunk like those in Nos. 40 and 80; hilt cleft like No. 38, said to have been found with Nos. 40, 80, and 84, and several other swords, upon an ancient battle-field near Athlone (Dawson). No. 78, fragment of a sword-handle with seven rivet-holes; 7. No. 79, small fragment of a sword-blade with peculiar handle-plate, examined by Mallet, but not described. No. 80, the curiously curved scimitar-shaped sword-blade, described at p. 446; welded in centre of blade, handle-piece defective, countersunk rivets like those in No. 77, but smaller; 224 inches long (Dawson). No. 81, lower fragment of a long narrow sword, handle portion welded and covered with ferruginous incrustration, two rivets; 91. No. 82, a fragment of a remarkable sword, differing

from all other specimens in the Collection, both in shape and form of handle-plate, the rivet-holes coming up on side of blade; 61. No. 83, the upper fragment of a narrow, leaf-shaped sword-blade, formerly supposed to have been part of No. 81, now placed before it; an examination of their sections will show the difference; 91 (Dawson). No. 84, the upper fragment of a sword-blade, curved like No. 80, with which it was found, and which it resembles in the raised line within bevel edge; nearly 10 inches long. No. 85, fragment of a bright yellow broad sword-blade, found with No. 76, which see.—Presented by the Board of Works. No. 86, complete, but fractured in centre, much hacked on edge, four large rivet-holes; 19 inches long, found with No. 22, and—Presented by Lord Lorton. No. 87, complete, but fractured, nine rivet-holes; 15\frac{3}{4}; marked "Killala, county of Mayo." Lower fragment drawn by Beranger; see p. 439. No. 88, a sword, defective in handle portion, and joined in two places by modern soldering;  $15\frac{1}{4}$  (Dawson). No. 89, a complete leaf-shaped sword-blade, fractured, covered with iron incrustation, seven rivet-holes, and two indentations not through; 194; found at Kilbride shoal, on the Shannon, and—Presented by the Shannon Commissioners. No. 90, imperfect sword-blade, broken near handle; 14½ (Dawson). No. 91, a bad specimen, long and narrow, modern soldering in centre, an incrustation of iron like that described at p. 394, covers the welded handle-plate; 17½ (Dawson). No. 92, a curious piece of antique bronze, corroded, and composed of fragments of two different swords brazed together; 17\frac{3}{4}. No. 93, a leaf-shaped sword, nearly complete, narrow handle-plate; 18 (Dawson). No. 94, the lower half of a sword, handle portion having one oblong aperture, like No. 1, broad side flanges, six large rivet-holes; 123; analyzed by Mallet as No. 9, and found to consist of 87.94 of copper, 11.35 tin, and traces of lead, zinc, and sulphur. (See Transactions, vol. xxii., p. 323.)

SHELF I., Tray AA, contains thirteen sword-blades of the long and short rapier variety, generally provided with large rivets for attachment to cast-metal handles, numbered from 95 to 107. These swords merge, gradually, into the smallest form of dagger, on Tray DD. No. 95, plain, triangular, tapering gradually from hilt to point, two imperfect rivet-holes;  $12\frac{3}{4}$  inches long by 2 across the broad thin hilt-plate; found at Keelogue Ford, and—Presented

by the Shannon Commissioners. No. 96, another blade of the same character, bevelled, a thick stud remaining in one of the two rivetholes; 12 by 2; found near the site of the old bridge at Banagher, between the county of Galway and King's County.—Presented by the Shannon Commissioners. No. 97 has a slight increase in the breadth of blade at the middle, which, with the handle-plate, looks like a transition from the leaf-shaped to the rapier variety; covered with smooth patina; two rivet-holes, one thick rivet remains; 11 by 11; found at Cutts, near Coleraine; see No. 23.—Presented by the Board of Works. No. 98, a bad casting, short, two rivet-holes; 9\frac{3}{4} by 1\frac{3}{4}.--Presented by Lord Farnham. No. 99 increases slightly in middle of blade, which has been fractured and soldered; two imperfect rivetholes; 11½ by 2 (Dawson). No. 100, a short, leaf-shaped sword-blade, thin, flat, and slightly imperfect in handle-plate, worn above hilt notches; 14 by 1 across blade.—Presented by the Shannon Commissioners. No. 101, a fine blade of the same variety as No. 62, mended near the point, ornamented with four delicate raised lines, running between the midrib, and the side edges; three rivet-notches; 17 by 2 at base. No. 102, long, narrow, thin, smooth, sharp; two shallow notches, and two rivet-holes, with one very thick rivet; 18½ by 2; found at Keelogue Ford.—Presented by the Shannon Commissioners. No. 103, slender, thin, long, narrow, and sharp, two rivetnotches, and central square aperture probably modern in hilt-plate; flat midrib; 19 by 14. No. 104, the largest blade of this description in the Collection, very thin, flat, and sharp on edges, broad flat midrib running entire length of blade, two large semicircular notches; 21½ by 1½, and 2½ at base; found with two similar swords, also two bronze spears (Nos. 64 and 235) and a spear-head, and two dirks of iron, in the bed of the River Boyne, a mile below Stoneyford Bridge, townland of Moyfin, parish of Clonard, and county of Meath.—Presented by the Board of Works. No. 105, thin, slender, angular midrib, two large rivets, each 5ths long; 204 by 2 at base, and 7 across centre of blade; found at Keelogue Ford.—Presented by Shannon Commissioners. No. 106, a very beautiful perfect blade, thin, slight, and exquisitely sharp both on edges and at point, midrib bifurcated towards handle, two semilunar rivetnotches; 19 by 2½ at base, and 1 across centre of blade; this sword has been figured and described at page 448. No. 107, portion of

a very fine blade, wanting about 3 inches of top, and resembling the long rapier figured and described at p. 448; blade deeply grooved or fluted, stout midrib, remains of four rivet-holes; 17½ by 2½ at base, and ¾ across centre of blade.—Presented by Shannon Commissioners.

SHELF I., Tray BB, contains eighteen sword and dagger-blades, of the narrow rapier variety; numbered from 108 to 125. No. 108, a very small, thin dagger-blade; 7½ inches long by 1½ across the hilt-plate, and scarcely a wide in blade. No. 109, a similar swordblade, with thick midrib and shallow notches; 7% by 1; found in excavating Portna shoal, in gravel, bed of River Bann, on Antrim side.—Presented by Board of Works. No. 110, ditto, imperfect at point, two rivet-holes; 8 by 1\frac{3}{2} across hilt-plate; found at Athlone. Presented by Shannon Commissioners. No. 111, a defective, much corroded dagger-blade; 10 inches in length. No. 112, a daggerblade, imperfect at top, two very wide rivet-holes;  $10\frac{1}{8}$  by  $2\frac{1}{8}$ . No. 113, a remarkably thin, slender dagger-blade, scarcely larger than a modern metal skewer, 11g by 1g at hilt, and g across middle of blade. No. 114, a very perfect, thin, narrow, rapier-blade; edge sharp, and in fine preservation, double notches in handle-plate; 14 by 18 at base, and across centre of blade. Procured from the neighbourhood of Strokestown, but whether from any of the crannoges in that locality is uncertain. No. 115, a small, rapier-shaped swordblade, with thick midrib and two semicircular rivet-notches; 147 by 21. Found in the Shannon, and—Presented by Shannon Commis-No. 116, a very thin slight blade, corroded narrow hiltpiece, two small perfect rivet-holes; 15½ by 1½; "found in bed of River Corrib, at Newcastle shoal, town of Galway."—Presented by the Board of Works. No. 117, a small, perfect rapier blade, with large rivet notches; 17\frac{1}{8} by 1\frac{1}{8} at base, and \frac{2}{4} in blade; found at Keelogue Ford in 1843.—Presented by Shannon Commissioners. 118, a similar blade; 17g by 1g, and in blade; found in bed of River Shannon, at Cornacarrow, near Jamestown, between the counties of Leitrim and Roscommon, in 1845.—Presented by Shannon Commis-No. 119, a small-sword rapier-blade, very thin, shallow notches, bent; 17½ by 2½ at base, and ½ in blade; found at Athlone. —Presented by Shannon Commissioners. No. 120, ditto, rounded in handle portion, very shallow rivet-notches; 16 by 21 at base, and

were—Presented by Shannon Commissioners. No. 121 and 123 were—Presented by Shannon Commissioners. No. 121, ditto, narrow handle-plate; 16 by 1½. No. 122, ditto; 16 by 1½, and ½ in blade; found with swords No. 1 and others on Toome Bar, on the River Bann.—Presented by the Board of Works. (See No. 138.) No. 123, ditto, with thick, flat midrib; 15½ by 1¼ in hilt, and ¾ in blade. No. 124, a rapier-shaped small-sword blade of bright-yellow metal, partially cleaned, broad hilt-plate, with two perfect rivet-holes; 14½ by ½, and 2 at hilt; found at Cutts, near Coleraine.—Presented by Board of Works. No. 125, a good specimen, very thin and sharp, thick midrib, notched for rivets; 14 by 1½, and ¾; found in the parish of Killucan, county of Roscommon, near Carrick-on-Shannon.—Presented by R. A. Grey, Esq., C. E.

SHELF I., Tray CC, contains thirty-six bronze sword and dagger blades of different shapes and sizes, numbered from 126 to 161. No.126, a thin, narrow, long, leaf-shaped dagger-blade; 6% inches long by 5 broad.—Presented by Lord Farnham. No. 127, a narrow blade of the rapier shape, very slender, point imperfect, notched in handlepiece; 6½ by § wide in middle of blade; found in the townland of Lismoyle, parish of Tamlaght-O'Crilly, county of Derry. 128, a triangular dagger-blade, with battered edge and two incomplete rivet-holes; 6\frac{2}{3} by 1\frac{1}{3} above handle-plate (Dawson). No. 129, perfect, triangular; 7\frac{3}{5} by \frac{7}{5} across middle of blade (Dawson). No. 130, leaf-shaped, rivet-notches;  $6\frac{3}{5}$  by  $\frac{7}{5}$  across blade; found with 134 at Keelogue Ford, and—Presented by Shannon Commissioners. No. 131, rapier-shaped, covered with incrustation, two rivet-notches; 65. No.132, ditto, short and thick, notched; 55.—Presented with No. 133 by Shannon Commissioners. No. 133, leaf-shaped, thin, notched;  $5\frac{1}{8}$  (see foregoing). No. 134, dagger-blade, fractured;  $6\frac{1}{8}$  (see 130). No. 135, portion of dagger-blade, corroded, hammered at edge of handle-piece for fixing handle to; 4½; found near Desertoghill Church, county of Derry. No. 136, a triangular dagger-blade, one edge serrated; 42 by 2 across blade. No. 137, a remarkable specimen, of a very short dagger-blade, rapier-shaped, but very broad in handle-plate, two rivet-notches; figured and described at page No. 138, rapier-shaped, round top, flat midrib, notched; 5\frac{3}{4}; found with Nos. 1, 4, 10, 11, 16, 32, 37, 122, 147, and 184, on Toome Bar, and—Presented by Board of Works. (See No. 1.)

No. 139, ditto, slender, notched; 62 (Dawson). No. 140, leafshaped, thick midrib, two rivet-holes; 67. No. 141, ditto, ditto; 7½ (Dawson). No. 142, ditto, rivet-holes incomplete; 7₺. No. 143, a corroded, sharp-pointed, broad, scythe-shaped dagger-blade; 9\frac{2}{3} by 2 in widest part. It and Nos. 144 and 145 came with the Dawson Collection. No. 144, the lower fragment of a rapier-blade, with rivet-notches; 85 by 7 across blade. No. 145, a complete, thick, narrow, dagger-blade, bayonet-shaped on each side towards point, two small rivet-holes; 8½. No. 146, rapier-shaped daggerblade, corroded, two rivet-notches; 82. No. 147, ditto, wants point, two rivet-holes, one rivet; 85; found with No. 1, &c. No. 138.)—Presented by the Board of Works. No. 148, a rapiershaped dagger-blade, thin, point fractured, notched in handleplate; 97. No. 149, a short, broad, triangular dagger-blade, slight bevel edge, defective in thin, worn handle-plate; 9 by 1% at base; found in the Shannon.—Presented by W. R. Wilde, Esq. Proceedings, vol. vii., p. 162, No. 270.) No. 150, a long, flat, rather broad dagger-blade, fractured near the top, where it had been subsequently rudely mended, curved at base, two slight rivetnotches; 10% by 1 across middle of blade. No. 151, a broad, flat, triangular dagger-blade, slight midrib, two imperfect rivet-holes; 9 by 17 across base. No. 152, figured and described at p. 448; found in the River Barrow. No. 153, a small, triangular dagger-blade, very broad at the base, with two large rivet-holes; 5 } by 1 { at base; procured from a county of Limerick collection. (See Proceedings, vol. vii., p. 130.) No. 154, a triangular dagger-blade, imperfect at both extremities; 3\frac{1}{2}. No. 155, a short, leaf-shaped sword or dagger-blade of bright-yellow bronze, deeply notched in handleplate, compressed in width near point, edges exquisitely sharp; 11 } by 1 across blade (Dawson). No. 156, a long, very narrow rapiershaped dagger-blade; 10; found about 4 feet under surface in clay and gravel, townland of Kilcloughans, parish of Tuam, county of Galway.—Presented by Board of Works. See Fig. 340, p. 462. No. 157, ditto, two rivet-holes; 83.—Presented (with No. 158) by Shannon Commissioners. No. 158, ditto, broad in handle-plate, which is devoid of holes or notches; 81. No. 159, a dagger-blade of the scythe shape; figured and described at p. 463. No. 160, a very perfect, triangular dagger-blade, exquisitely sharp at point and

on edges, very shallow handle-notches; 9 by  $1\frac{1}{8}$  across middle of blade, and  $1\frac{5}{8}$  at base. No. 161, a triangular dagger-blade, fractured about the middle, remains of rivet-notches;  $9\frac{1}{8}$  by  $1\frac{1}{2}$  at base, and  $\frac{7}{8}$  in middle of blade; found in Annagh demesne, county of Leitrim, three feet below the old bed of the river.—Presented by Board of Works.

SHELF II., Tray DD, contains thirty-seven dagger-blades of different sizes, varying in length from 3 to 112 inches, and numbered from 162 to 198. No. 162, a triangular dagger-blade, with a short elevated ridge running along each side of the handle-plate; 3\frac{3}{4} inches long by 7 wide; this number commences a series of very remarkable specimens, of which No. 166 is drawn as the type of this variety. No. 163, perfect, and resembling the former in every respect, except size; 5\frac{3}{8}.—Presented by Shannon Commissioners. No. 164, ditto, mended near centre, ridge on handle-plate oblique; 5\frac{1}{2}. No. 165, ditto, rather larger, complete, and sharp-pointed; 5\frac{2}{4}.—Presented by Lord Farnham. No. 166, the largest specimen of this peculiar variety, slightly grooved on surface; figured and described at p. 467. No. 167, a perfect bronze dagger, with open-work handle, all of one casting; figured and described at p. 467. No. 168, another and finer specimen of the same variety, also figured and described with foregoing. No. 169 appears to have been part of sword-blade, altered to dagger size, three rivet-holes, apparently drilled after casting, feather edge; 11½ by 13. No. 170, figured and described at p. 462. No. 171, a very thin, flat, dagger-blade of the broad triangular variety, which may be classed along with the scythe-shaped swords, and resembles No. 232, figured on page 451. In the handle-plate are the remains of six rivet-holes, as in some of the Continental broad swords and daggers; 83 by 2 across base, and 1½ in middle of blade. No. 172, a thin, flat, triangular blade, corroded at edges, and having lower portion prolonged into a tang for insertion into a horn, bone, or wooden handle. The slight narrow bevel on the edge is continued round the flat handle-plate, showing that the article was cast in its present condition, and not hammered out subsequently; 8½ by 21. Both this and the foregoing specimen were, probably, used as knives as well as daggers. It was purchased from Mr. Wakeman, and possibly came from Dunshaughlin. No. 173, a broad, flat

copper dagger-blade, with long handle-plate and two rivet-holes; 67 by 13. No. 174, thin, plain, flat, sharp-pointed; 6 by 13; found at Shannon Bridge.—Presented by Shannon Commissioners. No. 175, copper, flat, triangular handle-plate, forming an irregular lozenge with blade, one rivet-hole; 5 by 18. No. 176, a sharppointed dagger-blade, furnished with midrib and two rivet-holes; 4g by 11. No. 177, a sharp-pointed dagger-blade, notched in handlepiece; 7\frac{1}{2}. No. 178, ditto, ditto, one perfect rivet-hole; 6 (Daw-No. 179, ditto, rivet-notches; 5\frac{2}{3}; found near Jamestown Bridge, on the Shannon, between counties of Roscommon and Leitrim, and—Presented by Shannon Commissioners. No. 180, sharppointed, one rivet-hole in flat tang;  $5\frac{5}{8}$ . No. 181, ditto, ditto;  $5\frac{1}{8}$ . No. 182, thin, flat, bread at handle-piece, one rivet-hole in tang; 5. No. 183, knife-shaped, thin, flat, sides nearly parallel, slight featheredge; 5 by §. No. 184, perfect, knife-shaped, grooved in casting, slight raised ridge on handle-plate, like No. 166; 42; found with No. 1, and others, on Toome Bar. (See description of No. 138, on p. 479.)—Presented by Board of Works. No. 185, thick, narrow, imperfect at point;  $3\frac{7}{8}$ . No. 186, very narrow blade, broad handle-piece, resembling No. 127, point broken, three rivet-holes; 4 by 11 at base, and gacross blade. No. 187, thin and flat, with tang handle, perforated with one rivet-hole; 43. This, and the two following, may have been used as ordinary knives. No. 188, ditto, ditto, 32. No. 189, ditto, thin, flat, two rivet-holes; scarcely 3 by 1. No. 190, very triangular, four rivet-holes; figured and described at p. 463. 191, ornamented in casting, two rivets;  $5\frac{1}{4}$  by  $1\frac{3}{4}$ ; resembles No. No. 192, triangular, flat, two small rivet-holes;  $5\frac{1}{8}$  by  $1\frac{5}{8}$ . No. 193, very narrow in blade, being only } inch wide in the centre; 5\frac{1}{2} long, by 1\frac{1}{4} across handle-plate; resembles No. 195. 194, sharp-pointed, narrow handle-plate;  $6\frac{1}{3}$  by  $1\frac{3}{5}$ . No. 195, perfect, thick flat midrib, rivet-notches; 6 by 1 ; found at Cornacarrow, near Jamestown, county of Leitrim, and-Presented by Shannon Commissioners. No. 196, a rapier-shaped blade with feather-edge, two rivet-notches; figured and described at p. 464. No. 197, rapier-shaped, sharp-pointed, broad handle-plate, two rivetholes, one rivet; 63 by 13; found at Keelogue Ford.—Presented by Shannon Commissioners. No. 198, long and narrow, two rivet-holes, one incomplete;  $7\frac{1}{8}$  by  $1\frac{1}{4}$ .

SHELF I., Tray EE, contains thirty-three socketed daggerblades; numbered from 199 to 231. In length they vary from 3\frac{3}{2} to 114 inches; and the socket traversed in all cases by rivet-holes, runs from 1 to 2½ inches in depth. In twenty-two specimens the rivets passed from front to rere, and in all others (except 207) from side to side. No. 199, a spear-pointed dagger-blade, quadrangular in socket; 4 inches long. No. 200, broad in blade, feather-edged, compressed at neck of socket; 43; found at Keelogue Ford.—Presented by Shannon Commissioners. No. 201 wants point and margin of oval socket, compressed at neck; 41. No. 202, fragmentary, of bright-yellow metal, socket square, and 2½ deep; now 3½ long; found near Newry. Analyzed by Mallet, who has thus reported upon it:--"A good hard bronze, very like No. 8 [see swerd-handle, No. 24] in colour and external appearance, and rather more malleable. It was scarcely tarnished. Specific gravity, 8.675." Its composition was copper 90.72, tin 8.25, lead 0.87. See Transactions, vol. xxii., p. No. 203, spear-pointed, socket short, but passing for an inch into blade portion; 4\frac{3}{4}. This specimen, together with Nos. 206, 210, 213, 216, 222, 224, and 227, were procured with the Dawson collection. No. 204, one of the most perfect miniature daggers in the Collection, socket round; 45 by 4 across blade. Procured with No. 205 with the Sirr collection. No. 205, a short, broad blade, with round point, like a modern knife; 3\frac{3}{4}. No. 206, spear-shaped, tapering from flattened socket to point; 3\frac{3}{4}. No. 207, flat, wants top, socket short, no rivet-holes, decorated with a double ridge above handle portion, and a depressed line running round margin;  $5\frac{3}{4}$  by 11. No. 208, another and more perfect specimen of the same variety; figured and described at p. 465. No. 209, of the same variety, blade flat, with feather-edge, socket oval;  $5\frac{1}{2}$ ; found at Tubbercurry, county of Sligo. No. 210, thin, flat, leaf-shaped, socket oval; 6% by 1 across blade. No. 211, ditto, bevel-edged foursided socket, with a narrow neck; 61; found in bed of the river at Carrick-on-Shannon, and—Presented by Shannon Commissioners. No. 212, ditto, fractured, leaf-shaped, socket oval;  $6\frac{1}{2}$ ; found at Keelogue Ford. It and No. 217 were—Presented by Shannon Commissioners. No. 213, thin, flat, socket oval;  $6\frac{5}{8}$ . No. 214, small, narrow, ovalsocket; 58. No. 215, a long sword-shaped dagger-blade, perfect, socket oval; 81. No. 216, leaf-shaped blade, with bevel edge, collar

round neck of oval socket; 7\frac{1}{2}. No. 217, ditto, with midrib on blade, socket fractured, slightly corroded; 81. No. 218, perfect, of graceful form, surface irregular, figured and described at p. 465.—Presented by Shannon Commissioners. No. 219, ditto, almost a duplicate, socket circular, very large rivet-holes; 8.—Presented by Lord Farn-No. 220, small socketed dagger-blade with wooden handle; figured and described at p. 465. No. 221, long, sword-shaped, with large oval socket; 9. No. 222, a very well-cast dagger-blade, slightly imperfect at top, smooth, and of the green colour seen on Roman bronze, blade leaf-shaped, grooved, socket quadrangular, and enlarged at juncture with blade; 81. No. 223, leaf-shaped, narrow, socket corroded; 71. No. 224, long, leaf-shaped, round pointed, socket four-sided, ending in bifurcated elevation at blade; No. 225, a long leaf-shaped dagger; flattened socket, bifurcated like foregoing; 11%; "found deep in a bog in the King's county." -Presented by A. Molloy, Esq. No. 226, leaf-shaped, compressed socket, ends in square elevation at blade; 11%; found in bed of River Annalee, at Butler's Bridge, parish of Castleterra, county of Cavan.—Presented by Board of Works. No. 227, a large, perfect dagger, triangular in section of blade, with deep groove margining edge, like No. 207, socket, a compressed oval; 9\frac{9}{5} by 1\frac{1}{5} in widest portion. No. 228, a perfect dagger-blade, figured and described at p. 465. No. 229, another fine specimen, also figured and described at p. 465. No. 230, leaf-shaped, margin of socket concave, double cross rivet-holes; nearly 10 inches long. No. 231, leaf-shaped, short broad socket, ending in raised shoulder; 9½; found in the county of Wicklow.—Presented by Sir William Betham. (See Proceedings, vol. i., p. 222.)

SHELF I., Tray FF, contains eight large, triangular, massive sword or battle-axe blades, coppery, most of them scythe-shaped, large rivets remaining, except in No. 233; numbered from 232 to 239. No. 232, a thin, flat blade, described at p. 450 (see Fig. 327). No. 233, a fine specimen of the broad, flat, round-pointed blade, resembling in many respects the former, nearly straight on one edge and slightly curved on the other, flat midrib, five large, perfect rivet-holes, and remains of two others, as if it had been frequently re-handled, of reddish bronze; 12½ by 3½ above rivet-plate.—Deposited by Sir B. Chapman, Bart. (see also p. 451). No. 234, point broken, brazed in

centre, probably in modern times, thick, broad midrib, slight side bevels, much notched on edge, three holes, and two large massive rivets; 117 by 31. Marked, "Cavan; Tuagh, or war axe" (Dawson). No. 235, very perfect, slightly raised broad midrib, round point, double moulding within bevel edge; 11\frac{2}{3} by 3\frac{2}{3}. No. 236, cleaned, copper, with the peculiar leaf-marks on surface, like the celts of the same material; perfect, slightly curved, rather pointed, broad midrib; three large rivets in situ; 12 by 3 (Dawson). 237, long, narrow, much curved, pointed, slightly defective on convex edge, thick midrib, three massive rivets; covered with iron incrustation;  $13\frac{3}{8}$  by  $2\frac{7}{8}$ . No. 238, perfect, but rudely cast, nearly straight, differs from others in prolongation of handle-plate, pointed, no midrib, but side bevels, three rivets; 13\frac{1}{4}\dots y 3\frac{1}{8}\dots \text{ 'Found in a } bog in the county of Meath, in the year 1770." Figured by Beranger, see page 439. No. 239, curved, pointed, flat midrib, square at handle, and running into point at top, three thick rivets, each one inch long; 13\frac{1}{3} by 3\frac{3}{3}.

SHELF II., Tray GG, contains nine broad bronze blades, scytheshaped, curved and riveted, with grooves and midrib; numbered from 240 to 248. All these, except the two last, were found together, as stated in the description of the first, given at p. 451, where that article is figured and described. No. 240, see Fig. 329, as stated No. 241, a broad, curved blade, wanting rivets, and somewhat broader in the handle-plate than the foregoing, grooved round margin; 15½ by 4. No. 242, ditto, slender, narrow, rather pointed, three rivets remaining; 14g by 3g. No. 243, ditto, slightly corroded, notched in handle-plate above rivets, which remain in situ; 138 by 3\frac{1}{2}. No. 244, ditto, handle-plate shallow, one rivet remaining; 13 by 3\frac{3}{4}. No. 245, short, notched in handle-plate, three strong rivets in situ;  $11\frac{3}{4}$  by  $3\frac{7}{8}$ . No. 246, ditto, broad, appears coppery, both in colour and peculiarity of surface; 113 by 33. found together with the six foregoing in the county of Galway, as described above, and at p. 451. No. 247, nearly straight, a triple groove surrounds margin, two large rivets remain, each five-eighths thick below the burr; 11½ by 3 in the widest portion of the blade. No. 248, straight, slightly defective in edge, a deep triple groove surrounds margin; three very large rivets, each nearly an inch wide across the burr; see Fig. 328, p. 451.

SHELF I., Tray HH, contains twenty-two specimens of broad dagger-blades, battle-axes, and curved, scythe-shaped short swords, numbered from 249 to 270. No. 249, one of the best specimens of broad, double-edged, dagger-blade, figured and described at p. 463. No. 250, a thin, flat, angular dagger-blade, brassy in colour, wanting point, decorated; figured and described at p. 463. No. 251, flat, plain, very thin, three holes and two rivets, handle-plate strengthened by increased thickness of metal and square edges; 5% by 1%. No. 252, ditto, slight feather-edge, four rivets and one imperfect rivethole;  $6\frac{1}{8}$  by  $2\frac{1}{8}$ . Dredged from the Shannon above the new bridge at Athlone. No. 253, copper, a rude, much-corroded dagger-blade, slightly curved, wanting point; 55 by 2; found in the Shannon, and, with the foregoing—Presented by Shannon Commissioners. 254, flat, with slight ridge in centre, triangular, sharp-pointed, two small rivet-holes;  $5\frac{3}{4}$  by  $1\frac{7}{8}$  (Sirr). No. 255, flat, broad, round-pointed, notched on edge, narrow handle-plate, two rivets; 5 by 13 (Dawson). No. 256, copper, the most remarkable specimen of its kind in the Collection; figured and described at p. 489. No. 257, a bad, corroded specimen of the curved scythe-shaped blade, midrib, but no remains of rivet-holes; 9\frac{3}{5} by 2\frac{3}{5}. No. 258, thin, broad, flat, rasped on surface, slight feather-edge, three rivets; 71 by 21 (Sirr). No. 259, a much-battered and corroded specimen of the small, curved, scythe-shaped blade, two incomplete rivetholes, midrib, like those on Tray FF; 7½ by 3 (Dawson). No. 260, another specimen of the curved, scythe-shaped blade, imperfect on concave edge, broad midrib, with square termination; covered with brown crusty oxydation, two rivet-holes; 9 by 2½. No. 261, long, straight, narrow, imperfect on edge, sharp-pointed, rivet-holes incomplete;  $10\frac{1}{8}$  by 2 (Dawson). No. 262, a curved, broad, scytheshaped blade, incrusted with brown oxydation, a portion removed off the handle-piece for analysis; 10 by 3. Mallet describes this specimen as of "copper-coloured bronze of no great hardness; specific gravity, 8.404." Composition, copper 95.85, tin 2.78, iron 1.32, lead 0.12. (Transactions, vol. xxii.) No. 263, ditto, narrow, bent, covered with brown oxydation, broad flat midrib, two rivet-holes; 11½ by 2¾; found at Keelogue Ford, and—Presented by Shannon Commissioners. No. 264, broad, thick, midrib ends short of point, three holes and one rivet; 11 by 2½. No. 265, a muchworn and corroded specimen of the curved, scythe-shaped blade, two incomplete rivet-holes; 12 by  $2\frac{1}{2}$ . No. 266, much corroded, point deficient, one perfect and two incomplete rivet-holes;  $9\frac{3}{8}$  by  $3\frac{3}{8}$ . No. 267, a very bad specimen, much worn and corroded, narrow, covered with brown oxydation; three rivet-holes and one rivet; 9 by  $2\frac{1}{4}$ . No. 268, complete, straight, short, broad, two strong rivets, each an inch long, one incomplete rivet-hole;  $8\frac{3}{8}$  by  $3\frac{1}{8}$ . No. 269, complete, a very good specimen; figured and described at p. 489. No. 270, broad, flat, imperfect in handle-plate, three rivet-holes, wide midrib;  $7\frac{1}{2}$  by  $2\frac{7}{8}$ .

Rail-case O contains twenty-nine articles chiefly appertaining to swords and battle-axes, and numbered from 271 to 299. 271, the massive, curved scythe-shaped sword, described as Fig. 330, p. 451. No. 272, the dagger-blade, Fig. 334, p. 458. 273, a fragment of the blade and metal handle of a small, narrow sword, with three rivet-holes, and a small portion of the open-work handle, now 12 long. This is one of the few examples of metal sword-handles ever found in Ireland. No. 274, a thin flat dagger, delineated in Fig. 346, p. 463. No. 275, a piece of decorated swordblade, Fig. 322, p. 446. No. 276, a much-injured fragment of sword-blade. No. 277, the upper fragment of a sword-blade;  $7\frac{7}{8}$ inches long; remarkable for its very high midrib and deep lateral cast ridges, in which respect it resembles some of the spears. No. 278 is a small fragment of sword-blade. No. 279, a small and very thin handle-plate of a rapier-sword, two rivet-holes and one short rivet. No. 280, a very small dagger-blade, with wide notches in handle-plate; 35; found in Lough Gurr. No. 281, a dagger-point. No. 282, a narrow dagger-blade, with high midrib and ridge on handle-plate, like No. 166; 5\frac{2}{3}; found at Ballinderry. No. 283, the scabbard ferule figured and described at p. 460. No. 284, the small capsule for scabbard end, see Fig. 336, p. 461. No. 285, another and larger boat-like ferule of thin yellow bronze, apparently formed in one casting; 33 from point to point; found with the following article in Keelogue Ford, and -Presented by the Shannon Commissioners. No. 286, an article similar to the foregoing, but in much better preservation, and somewhat larger and heavier; figured and described at p. 461. No. 287, a specimen of the third

variety of scabbard-end, slightly defective at both extremities. slender rivets which held the wooden portion of the implement are still in situ; it is now  $5\frac{1}{2}$  long (Sirr). No. 288, another and somewhat smaller specimen, wanting about 11 inch of one extremity, but restored in Fig. 338, p. 461 (Sirr.) No. 289, a still larger specimen of this variety, wanting one of the button extremities; now  $6\frac{1}{2}$ , but must originally have been 8 inches in length. Procured from Mr. Wakeman. No. 290, the small crescent-shaped piece of bronze, probably the end of a scabbard, measuring 1 from point to point.— Presented by Marcus Harty, C. E., and described in Proceedings, vol. vii., p. 160. No. 291, the wooden-sword model, described as Fig. 331 at p. 452. No. 292, a mixed-metal model of a leaf-shaped sword, resembling several of our Irish specimens; 22. Found with No. 293 in Northumberland, and—Presented by Lord Talbot de Malahide. No. 293, a metal model of a sword-blade and handle, found with the foregoing; from pommel to point it measures 21% inches. The pommel forms a horse-shoe-shaped decoration, precisely resembling some of those semilunar gold articles, with cupped extremities, in the Collection. No. 294, a model of the rapier figured at p. 442.— Presented by Lady Staples. No. 295, the bill-shaped blade or battleaxe, figured and described at p. 492. No. 296, the bronze tube, figured and described at p. 492. No. 297, this and the two following articles are the heads of battle-axes, the first of which is figured and described at p. 493. No. 298, another specimen, similar in length, but more slender in the socket, which is decorated with three raised fillets. It has only two sets of spikes, with four in each row; on the lower row one is deficient. It bears the following label: "Unique type of ancient Irish war-club from county of Gal-No. 299, a short implement of the same character;  $3\frac{1}{5}$  inches long, covered with greenish patina, socket conical, and decorated with two fillets below the three sets of conical spikes, four in each set (Dawson). Found in the county of Roscommon. See Dublin Penny Journal, vol. ii., p. 20.

In bottom case, opposite Rail-case O, are placed the two double models of sword-moulds, referred to at p. 452, Nos. 300 and 301.

The Battle-axe, Tuagh-Catha, or Biail,\* usually of iron, was a highly esteemed weapon among the Irish in the middle ages; but neither in the Fenian romantic tale of the Tain-Bô-Cuailgne, nor in the Book of Rights, is any mention made of such an article. It is quite manifest that such short, blunt, round-pointed, spade-like implements, as these shown in the two following cuts, could not have been used for stabbing, or, if attached to handles merely intended for a finger-grasp, were not employed for cutting or hacking. They

were, we believe, set at right angles, upon stout poles or staves, by means of metal collars, and thus converted into most formidable weapons, occupying a position among our ancient arms, midway between the bronze, hatchetshaped celt, and the broad, scythe-shaped sword, which latter they resemble in the

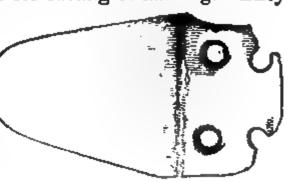


Fig. 356. No. 256.

Fig. 357. No. 249.

form and mode of hefting, but partake somewhat of the nature of both. An antiquary, speculating on one or two isolated specimens of this implement, might be inclined to place it among the species Tools, or Agricultural Implements; but with such a Collection as that belonging to the Royal Irish Academy, in which we find so many examples of this pe-

\* Biail is the word used by the Four Masters, under the years 1157, 1186, and 1218, to express a battle-axe; but it evidently refers to an iron weapon, which was probably analogous with the English "Bill," which Skinner considered to be the "Securis rostrata," or beaked axe, so called from its great resemblance to the bill of a bird; and certainly no article in this Collection bears a greater similitude to the beak of a gull than that shown by Fig. 359, p. 492. In Zeuss' Grammatica Celtica, bidil glosses the Latin securis.

culiar implement of all sizes, from that of the undoubted swordblade, already described, to a dagger not more than four inches long, it is impossible not to come to the conclusion that they belong to the species Weapon. In this article we have also an ample field for observing the process of artistic development, possibly spreading over centuries, as was already demonstrated in the examination of the celts and true swords. Their antiquity may be gathered from the fact of many being of copper, the use of which metal invariably preceded that of bronze. In the handle-plates they are much larger than swords or daggers, and have frequently four rivetholes, placed in pairs on each side. No. 256, on Tray HH, Fig. 356, is a flat, short, spade-like article of copper, 53 inches long, and 3½ wide; the blade is 3¾ in length, and, like most specimens of this variety, has a large, thick handle-plate for fixing it in a strong metal collar. Fig. 357, drawn one-fourth the size of the original, from No. 269, on the same Tray, measures 9 inches in length, by 33 broad, is strengthened by a stout midrib, like that in the swords figured on page 451, and is also deeply grooved on each side of that portion. It has four rivet-holes, placed in pairs, as in the former article, and not in a semicircle, as those of the sword and dagger-blades usually are. Three of the strong studs still remain. Some of the curved bills or scythe-like blades, already described, were, in all probability, affixed to long handles like modern halberts.

Heretofore these articles have been denominated "warscythes," and vague notions have existed as to the way in which they were used, as already stated at page 450. Their precise use may now, however, be learned from the following:—In Holstein, Mecklenburgh, and Saxony, bronze implements, with blades similar to some of those now under consideration, have been discovered, and to these the German antiquaries have given the name of *Commandostab*,—a sort of military baton. Three of these have been figured in Wagener's

Handbuch der Alterthümer (Weimar, 1842), from Fig. 1281 of which is copied the accompanying illustration, in which the

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Fig. 858.

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blade corresponds, in many respects, with several of those in the Academy, and of which Fig. 358 is

we find the curved variety, with a blade precisely si-

milar to Figs. 329 and 330, also represented. In the Hill of Osterburg, in Saxony, where the article, here figured, was discovered, there were found along with it one thousand urns, several stone war axes (celts), and twelve oval metal disks,

supposed by Wagner to have been attached occasionally to the Commander's staff, in signalizing. The handles were hollow tubes, strengthened by wooden staves, which projected below a considerable distance, and thus also added to their length.

Among the bronze articles heretofore unexplained in our Collection is a hollow tube, 24½ inches long, and 1½ in diameter, No. 296, in Rail-case O, with a moveable ring in the middle, and furnished with four circles of spikes (four in each row), two near the centre and one at each end, where the collars and rivet-holes show that it had been attached to other Hitherto this article has been regarded as a portion of a trumpet, and would appear to be that figured as such in vol. ii. of the Transactions of the Academy, and described by Ralph Ousley, Esq., one of our earliest collectors of antiquities; it was found in the county of Limerick in 1787. The trumpets found along with it are still in the Academy, and are described under the head of musical instruments. During the past year another and very beautiful form of bronze battle-axe blade has been procured from the bog of Rock Forest, near Roscrea, in the county of Tipperary; it is 7% inches long, and 8% measured along the base, where it has two perfect rivet-holes and two notches, as shown in the accompanying illustration, the lower portion of which represents

the tube alluded to; the dotted line above marking its probable termination at top. It is possible, however, that the socket for holding the blade may have projected beyond the line of the shaft. This bill-axe, No. 295, in Rail-case o, is the only article of the kind, we believe, ever found in Ireland, and resembles in its flat surface and midrib the scytheshaped blades on Trays FF and GG.

The fact that some of the broad Fig. 859, No. 296. blades on Tray GG were found together, as described at page 451, lends probability to the conjecture that they were battle-axes, wielded by a particular class of soldiers, and not the staffs of officers. In the warfare of the period they must have been most formidable weapons. Vallancey, who figured one of these curved blades in 1784, seemed well aware of its use as a Tuagh Catha, and said: "The great rivets of this weapon show it was mounted on a very strong shaft; it was an excellent weapon in the defence of an entrenchment."—Collectanea, vol. iv., p. 62.

Most of the articles of this description have been arranged on the three last Trays among the Collection of sword and dagger-blades, the details of which are given from pages 484 to 487.

Battle-Maces, or metal batons, from eighteen to thirty inches in length, and furnished with enlarged massive decorated heads, formed part of the usual weapons of the warriors of the middle ages, when they were constructed of iron, and generally hung at the saddle-bow. They were used in close combat, after the sword and lance had been thrown aside, or were cast from a distance, as graphically related by Scott in his description of the encounter between Richard Cœur de Leon and Saladin. In

still earlier times, however, they consisted of hollow spiculated bronze heads fastened on wooden handles, and must have been very effective weapons in the warfare of the period. They are of very wide distribution, for there are few collections in north-western Europe in which we do not meet with some of them. In length they run from two to five inches, and are generally one and a quarter across the socket. There are three such articles in the Academy's Collection,

numbered from 297 to 299 in Rail-case O: and of which, that here figured one-half the natural size, with three sets of spikes, six on each row, arranged on alternate spaces, is a good specimen. Each spike is lozenge-shaped at the base, and the upper ones curve downwards; it is 3½ inches in length, and 1½ at the bottom of the conical socket. It formed originally a portion of the collection of the late Mr. R. C. Walker, and was—Presented by the Duke of Northumberland, when he purchased that gentleman's collection.

Fig. 361. No. 297

## BRONZE IV. AND V.

Spears, Javelins, Darts, Bolts, and Arrow-Heads, of bronze, in great variety, and of the most graceful forms, have been found in abundance in Ireland. Those in the Academy's Collection are arranged on two large Trays, II and JJ, in the northern extremity of the Western Gallery, and on five small Trays in the first compartment of the northern side of the ground-floor of the Museum, from EE to OO. The largest spear-head yet found in Ireland is 36 inches long (see the model of it in Rail-case P); but of the originals in the Academy, the length varies from No. 18, the central specimen on Tray II, which measures 26% inches, see Fig. 366, to

No. 136, on Tray LL, Fig. 38, which is only 17 inch long, and which specimen is the type of the majority of the small bronze bolts and arrow-heads.

The distinguishing characteristic in our Irish spear-heads is the loop or ear for securing them to the handles, and possibly for attaching tassels or other decorations to. This loop was gradually removed upwards from the side of the socket several inches below the blade, first up to, and then into the blade itself, which it lightened as well as ornamented.

Next to the sword, the arrow projected from the bow, the dart cast by the hand, and the spear driven against the foe, would appear to be the earliest weapons used in the warfare of all primitive nations, and were brought to great perfection in this island. Our collection of such articles is, undoubtedly, one of the most extensive in Europe, and amounts to as many as two hundred and seventy-six specimens. though the generic term for a spear is Sleagh (probably a missile weapon), the word Laighean is thus noticed by Charles O'Conor in his Dissertations on the History of Ireland:— "After his return from his exile in Gaul, Labra-Loingseach brought the Lagean in use, a sort of broad-edged lance, from which the provincialists of Leinster derive the name of Laignidh, and their country, the name of Laighean."—page 67. The names of the agricultural implements known in the present day as the "slaine" and "loy" are probably derived from these terms. Besides the foregoing, the following words were used to designate spears, javelins, or darts—possibly of different shapes,—manais, now applied to a mason's trowel, which, in form, resembles many of our broad, leaf-shaped spear-heads; cruiseach; and also fogha [faga in MS. H. 2, 16, col. 42, T.C.D.], gae [the Gaulish gaesum], and gabhal.\*

From the following circumstance, related in the Táin-Bó-

<sup>\*</sup> See note afforded by Mr. Curry in Dr. Robinson's account of the Dowris Find, described in the Proceedings, R. I. A., vol. iv., p. 240. Delenn, muirenn, carr, rincne, cnarr, celtair, slissén, are also names for spears or javelins; ruibhne, omna, ceis, are given by Lhuyd as names for a lance.

Cuailgne, it would appear that the word Clettin was applied to the shaft of the bronze spear. Redg, the satirist laureate of Queen Meave, threatened to lampoon Cúchullain, who thereon cast his clettin at him, and striking him in the pole of the neck it passed out through his mouth, and killed him on the spot, at the "ford, which henceforth received the name of Ath-Solom-Seoid, or the Ford of the Ready Gift [in Louth]; and its bronze head was hurled from off the clettin upon the stream, whence it is called Umhan-Shruth [Bronze Stream] ever since."\*

For the sake of arrangement, the spears and darts, &c., may be divided into four varieties:—1. The simple leaf-shaped, either long and narrow, or broad, with holes in the socket for passing the rivets through which fixed it in the handle. 2. The looped—with eyes on each side of the socket below, and on the same plane with the blade—generally of the long, narrow, straight-edged kind. 3. Those with loops in the angles between the edge of the blade and the socket. 4. In this variety we find the loops moved upwards, so as to form side apertures in the blade. These two latter varieties, but especially the last, are peculiarly Irish. Each variety has its diminutive, as already observed with respect to the swords and daggers.

By the five following cuts are represented good typical specimens of each of these varieties, as well as examples of the long, straight, and the recurve-edged forms of spear or javelin heads. The two first and the fourth figures present us with examples of the narrow elliptical, and the broad leaf-shaped varieties; and Figs. 364 and 366 exhibit the long narrow weapons of the third variety. Fig. 362 is drawn from No. 6, on Tray II, a very fine and perfect specimen of the long, plain, leaf-shaped spear-head with a feather-edge, and large rivet-holes across the conical socket. It is 13½ inches long

<sup>\*</sup> Extract supplied by Mr. Curry from his MS. translation of the Tain-Bo-Cu-ailgne. Diceltair is Cormac's word for a spear-shaft.

by 1\frac{3}{2} in the widest portion of the lancefoliate blade; found in cauldron No. 14, see p. 540. Nos. 2, 3, 7, 55, 64, 65, 68, 74, 87, and 91, are of this variety. Figure 363, drawn from No. 79, on Tray JJ, represents a very fine spear-head slightly defective at top; 13\frac{7}{2} inches long by 2\frac{1}{2} broad at the base of the blade, which differs from the former in being widest below the middle: a subvariety, of which we have good examples in Nos.

28, 32, 249, 250, and 252. There is a loop on each side of the long narrow socket in a line with the edge of the blade, but not opposite each other, in which respect this specimen is unique. In all other instances the loops are placed opposite each other. A third sub-variety of the leaf-shaped spearhead is very broad in the middle of the blade, as in Nos. 10, 232, and 258. Figure 364, from No. 26, on Tray II, is a fine and very perfect specimen of the long narrow spear, with concave or

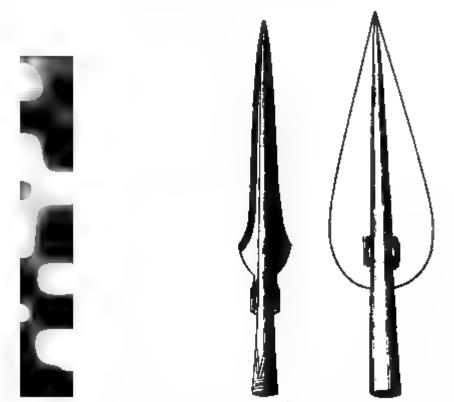


Fig. 362, No. 6. Fig. 368, No. 79. Fig. 864, No. 26. Fig. 865, No. 249. Fig. 366, No. 18.

recurved sides, and long, lozenge-shaped loops on each side of the socket, where the circular form of that portion of the weapon becomes angular. Narrow, lateral ridges connect

these loops with the base of the blade, which has hollow bevelled edges, and is as sharp as the day it came from the mould. The socket margin is decorated with a fillet of five elevations, and a double linear engraved or punched ornament, forming a triangular pattern, like that seen in some antique gold ornaments. A sharp ridge extends along the middle of the socket from the loops to the point, on each side of which, as well as in the angles between the blade and socket, there are lines of small oval punched indentations, apparently effected by the hand. It is 15 inches long by 2 wide across the base of the blade. In Fig. 365 the loops are still further raised into the blade, but are small, and furnished with external flanges. This cut is engraved from No. 249, on Tray oo, one of the finest specimens of broad-leafed spear ever discovered in Ireland; 13½ inches long, and 3¾ wide across the It is in the highest state of perfection, and has been cleaned to exhibit its original golden colour.

The final illustration, Fig. 366, represents the largest bronze spear-head in the Collection, and the second largest found in this country,—No. 18 in the centre of Tray II; 26½ inches long by 2½ in the widest part of the blade—with an ancient mending near the point, and a slight defect in casting at the base of the blade, which has a broad concave bevel round the edge. The socket is circular throughout, but short in proportion below the straight-edged blade. In the angles formed by these two portions are attached narrow slender loops—thus placing it in the third variety of this classification. It was found near Maghera, county of Londonderry.

In the four following illustrations are shown some of the sub-varieties of small dart or javelin heads. No. 132, on Tray LI; 3½ inches long, is a rare form of leaf-shaped dart or arrow-head, represented one-half the natural size, by Fig. 367. Figure 368, from No. 125, on Tray LI, is the type of the plain triangular-bladed lance, or hunting spear, of which there are a great number, and of different sizes, in the Museum. (See

in particular Nos. 19, 59, 62, 125, 129, 164, 172, and all those in the bottom row of Tray ment, except No. 192.) It is 5½ inches long, and 2 across the base of the blade; and has a very slender quadrangular stem, or socket, not hollow beyond its junction with the blade, in which respect it differs from all others in the Collection. It was found under two and a half feet of clay in the bed of the Quinn River, 20 perches east of Danganbrack Castle, barony of Upper Bunratty, county Clare; and—Presented by

the Board of Works.

Fig. 367, No. 133. Fig. 368, No. 125.

Fig. 369, No. 59.

Fig. 370, No. 339.

Figure 369 has been engraved one-half the natural size from No. 59 on Tray JJ, broad and triangular in thin flat blade, with raised cast ornaments on the sides, and along the upper portion of the wide conical looped socket, which terminates at the junction of the decorated lines. It measures 4½ inches by 1½. Figure 370 is an illustration of No. 239, on Tray NN, a rather rare and remarkable specimen of spearhead, with long triangular recurved-edge blade, deeply indented on each side of the very broad flattened oval socket. The loops spring from the margin of the socket. It is 6½ inches long, and 1½ across the junction of blade and socket.

The four annexed engravings, two of which are drawn from imperfect specimens, represent the best examples of the

highly decorated spear-heads, with large lateral apertures in the blades: which form the fourth variety in the classification of these weapons, of which there are sixteen in all, including No. 249, already figured on page 496. No. 100, on Tray XX, from which Fig. 371 has been engraved, is the lower fragment of a very beautiful and unique spear-head, with circular apertures below the large side openings. The wings of the blade above these openings are now detached from the socket to which they were there originally joined by an almost imperceptible line of adhesion; and

Fig. 871, No. 100.

Fig. 872, No. 36.

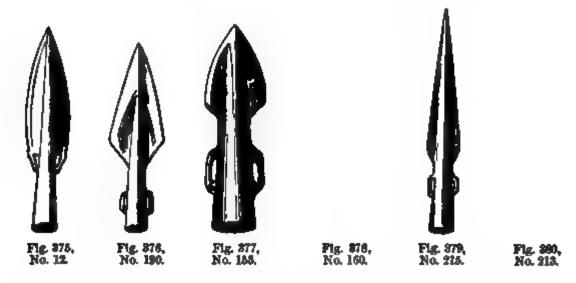
Fig. 873, No. 252.

Fig. 374, No. 34.

the raised mouldings round their inner margins continue along the edges of the socket, which is also decorated by an elevated ridge, which probably coalesced at the point with those of the blade, when the article was perfect. It is now 4½ inches long, and 3 wide. Figure 372 exhibits, No. 36, on Tray JJ, another fragmentary specimen of this variety, now 10½ inches long by 3½ wide; the lateral apertures in the bevel-edged leaf-shaped blade of which are not symmetrical. The socket margin is surrounded by a cast decoration for 1½ inch of its length, above which there is a large rivet-hole. In No. 252, on Tray oo, Fig. 373, we observe another form of this variety, strong, thick, short in lower portion of quadrangular socket, with holes at the angles of the elliptical lateral aper-

tures. It measures 11½ inches long by 1½ broad; has rivet-holes; and was—Deposited by the Royal Dublin Society. Fig. 374, from No. 34, on Tray JJ, illustrates a very graceful long-leafed spear-head, highly decorated in casting, by a series of raised roped lines extending over the surface of the socket, and forming an ornamentation round the rivet-holes, and along the outer edges of the narrow lateral apertures; the blade is bevel-edged. This article, which is 11½ inches long and 2 wide, has all the appearance of having suffered from exposure to great heat.—Presented by the Shannon Commissioners.

By the following cuts are shown some sub-varieties of spear and arrow-heads. Figure 375, from No. 12, on Tray II, represents a small leaf-shaped spear, with the loops placed in the angle between the blade and socket; of fine yellow bronze, 6½ inches long, by 1½ broad. No. 190, Fig. 376, is a small, narrow specimen of the triangular-bladed hunting spear, with the loops low down on the circular socket,



7½ inches, by 2½. Figure 377 represents the thick, short, large-socketed, small-bladed bolt or arrow-head of which there are about sixty specimens in the Collection, ranging from 2½ to 6 inches in length, of which the socket always forms the major part. This specimen, No. 153, on Tray man, 2½ inches in length, is deeply indented in the blade on each side of the thick socket. No. 160, shown one-half the natural size by Fig.

378, is a good example of the same form of bolt-head. Figures 379 and 380 illustrate the small narrow-bladed, sharp-pointed, straight-edged javelin, of which there are many examples in the Collection. The former is drawn from No. 215, on Tray MN, 53 inches long, and 3 across the widest part; the loops touch the lower margin of the blade. The latter, from No. 213, is of the same description, but wider in the socket. It is slightly defective at both extremities, but the top has been restored in the drawing. It now measures 54 inches.

The first cut in the following series of illustrations is a facsimile of No. 136, on Tray LL, the smallest dart or arrowhead in the Collection, but appearing in the engraving much larger than the original; the conical socket is hollow almost to the very top. See page 513.

Several of our spear and javelin-heads are most elaborately decorated both in casting and by hand, as shown by the accompanying illustrations. Figure 382 shows, one-half the natural size, the lower portion of the socket of No. 251, on Tray oo, a very beautiful and highly decorated spearhead of the long leaf-shaped variety, with raised bands, highly decorated with a chevron pattern.

Fig. 381, No. 184. Fig. 382, No. 281. Fig. 383, No. 181. Fig. 384, No. 181.

This spear-head is 14 inches long by 2<sup>2</sup>/<sub>4</sub> wide, and was found near Athenry, county Galway. Figures 383 and 384 pre-

sent side and front views of No. 191, on Tray MIR, a middle-sized, graceful, broad-bladed spear-head, with a sulcus on each side of the socket, where, in most other specimens of this variety, there is a raised line. It is in fine preservation, and most beautifully decorated by minute punched or incised lines all over the socket, as well as on the surface of the broad lozenge-shaped loops: see Fig. 383. It is 7½ inches long by 1½ wide at the base of the blade; and was found in the Shannon, at Athlone.

The perfection of spearhead decoration appears, however, to have been attained in those round-pointed, short articles, with deep depressions on each side of the socket in the angular blades, of which there are two fine examples in Nos. 192 and 193, on Tray MIM, one of which is here represented, two-thirds the natural size. No. 192, Fig. 385, is 5 inches long by 17 wide, and has a central circular stud opposite the base of the blade, beneath which there are a series of minute continuous lines, margined on both sides by a row of elevated dots. This ornament, although now much

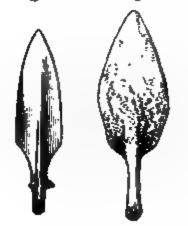
Fig. 885, No. 192. Fig. 886, No. 934.

effaced, evidently passed along the sulci on each side of the socket, as shown in No. 234. The outer surfaces of the loops are also beautifully decorated with incised and dotted lines of ornamentation. Figure 386 faithfully exhibits the beautiful

and delicate details of ornament on No. 234, which is 7½ inches long. In several places this ornament may be observed in relief; but in one spot, where there is a patch of dark-coloured polished incrustation, or patina, it is depressed; a circumstance which, with our present knowledge of casting, it is difficult to account for.

The ornament on the circular portion of the socket in this specimen was evidently formed in the mould; but the triangular decoration on that in Fig. 385 was made subsequent to casting, and apparently by a chisel-edged tool.

Arrows—in Irish, Saigts—of bronze were usually socketed, as shown by Figs. 377 and 378, page 500, selected from the large assemblage of these articles on Trays man and man, and described under the head of Bolts in the foregoing observations. Most of these would, from their shape, appear to have been projected from the cross-bow, or other engine of that nature. The three following cuts are drawn from small, thin, flat, bronze arrow-heads, probably used for shooting with the simple bow at birds or minor animals, and were inserted into their shafts by means of slender tangs: see Rail-case P. Figure 387 represents a thin, flat, spear-shaped specimen, of



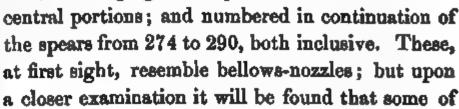
yellow metal, slightly defective at the point, and flatter on one side than the other; now 31 inches long. Fig. 388, also flat and leaf-shaped, is hammered out of a piece of metal, and measures with the tang 41 inches, of which

The set, No. 300. Fig. 300, No. 300. Fig. 300, No. 300. the blade is about 3. The third figure shows a triangular arrow-head, 3 g inches long, and flat on one side, as if cast in a single mould.

<sup>\*</sup> In the writings of Harris, Vallancey, Walker, and others of their school, we read of the Crann-Tabhail, stated to have been a sort of sling; but no authority is referred to for the assertion.

Handles and Ferules.—Notwithstanding the immense length of time which must have elapsed since these spear, javelin, and arrow-heads were in use, portions of their original oak and ash shafts remain in the sockets of several, see Nos. 45, 52, 76, 93, 116, and 133; but we possess few means of judging of their original length.\* Many of them were, probably, long and slender. The simple leaf-shaped spear, or lance, was fastened to its shaft by a metal rivet passed across the socket; in the looped variety, a ligature, possibly, passed down from the socket, and was fastened to the shaft; but some of the spear-heads, with lateral apertures, have also rivet-holes in the socket.

To Tray PP, in the Northern Ground-floor, have been attached seventeen tubular articles, varying in length from 31 to 18 inches,—averaging about 4 in the diameter of their



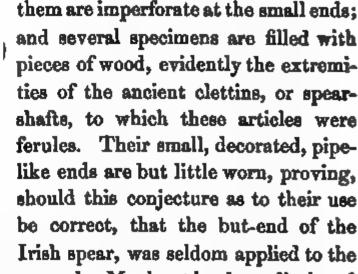


Fig. 590, No. 277. Fig. 591, No. 279. ground. Much art has been displayed in the manufacture of these articles, as shown in the two typical illustrations, here represented one-half the natural size, of the large and small ends of Nos. 277 and 279. Figure 390 is drawn from one of the largest of these ferules, 16 inches in

<sup>•</sup> In O'Davoren's Glossary (British Museum, Egerton, 88) is mentioned a cnarr (spear), of "twelve fists in length, as well iron as shaft" (fockuir .i. urlans.)

length, probably soldered originally along the seam, but the joining is now open. It is decorated at top with the pattern shown above. Fig. 391 is from a smaller and differently-decorated specimen, with the seam joined by a number of oblique rivets, the holes for which are shown in the cut. Both the bulbous head and small extremity are cast; and the former has four counter-sunk indentations, probably for holding stones, enamel, or glass; there are two in the It measures 141 inches; and was found in the river, at the site of the old bridge of Banagher, and—Presented by the Shannon Commissioners. It rather strengthens the opinion as to the use of these articles, that the majority of them were found upon the fords of the Shannon, along with several spear-heads and sword-blades, &c. A third form, of which there are four specimens at the bottom of Tray PP, is shorter, and more conical. See details of all these at p. 517.

Moulds, for spear and arrow-heads, are of rare occurrence; but there is one stone mould of this description in the Academy's Collection, with three separate indentations upon it; figured at page 91. See description of first Cross-case in the Northern Gallery, page 92.

The following is a detailed catalogue of the spears, javelins, and arrow-heads:—

## WESTERN GALLERY.—BRONZE IV.

SHELF I., Tray II, contains thirty-six bronze spear-heads of different shapes and sizes, typical of the several varieties of this weapon; and consisting of simple leaf-shaped, both long and short; broad boltheads, with and without loops; those with apertures in the blades, and the long, narrow variety with straight side edges. Those of the simple leaf-shape pattern, Nos. 1 to 8, are arranged on the upper and lower rows of the left-hand corner of the Tray. The specimens chiefly of the long, narrow variety, with loops either on the sides of the sockets, or at their angles with the blades, occupy the middle

space in both rows, from Nos. 9 to 26; and those of the variety with lateral apertures are placed in the right-hand corner, from No. 27 No. 1, a broad, leaf-shaped spear-head, remarkable for the great length of the socket, and its angularity in the blade portion, as also for not having a rivet-hole; 10\frac{2}{3} inches long by 2\frac{1}{4} across the widest part of the blade. Found in 1847, with bronze sword, No. 35, and also an iron sword, three feet under a gravel deposit, in the River Glyde, to the south-east of Derrycrammagh Ford, parish of Mansfieldstown, county of Louth. No. 2, a beautifully perfect, long, leaf-shaped spear-head of Dowris-coloured bronze; grooved feather-edge round blade; cross rivet-holes, as in all the other specimens of this form; 10 by 13. Both this and the foregoing have been rubbed down in the point, evidently in modern times. No. 3, a beautiful specimen, of rare form, and in high preservation, having a raised line within the grooved feather-edge; very sharp point; 10\frac{1}{2} by 1\frac{1}{2}. Found in deepening bed of Yellow River, below Ballinamore, townland of Ardrum, parish of Oughteragh, county of Leitrim. No. 4, a remarkably short specimen, with angular socket, which is not quite one inch long, below plain flat blade; 73 by 13. No. 5, in fine preservation, broad in blade, edges sharp; 121 by 25. Found in old bed of River Brusna, opposite ruins of Wheery Abbey, near Gallen, barony of Garrycastle, King's County. No. 6, a fine specimen of long leaf-shaped spear; figured and described at p. 496. No. 7, leaf-shaped, long, fractured near top, corroded; 15 by 21. No. 8, very perfect and remarkably large, slight feather edge, socket four-sided; 17 by 2 near base of blade. No. 9, long and narrow, has remains of brown patina, looped at junction of blade and circular socket, one loop defective, no rivetholes in this or any other of the same variety; chamfered edge exquisitely sharp; 12g by 1g. Found at Cutts, near Coleraine, on the River Bann. See sword, No. 23, p. 470. No. 10, broad, short blade, long socket, with side loops not touching blade; 7½ by 1%. No. 11, small, of the long straight-edged variety, bronze gold-coloured; loops flat, leaving triangular apertures between junction of blade and socket;  $6\frac{7}{8}$  by  $1\frac{1}{4}$ . No. 12, ditto, but more leaf-shaped in blade, loop apertures less angular, slightly defective; 62 by 11. No. 13, a very perfect small bolt or javelin-head, broad, leaf-shaped

in blade, with ridge running along the most prominent portion of two upper-thirds of socket, feather-edge, broad loops in angles of blade and socket; covered with a smooth patina; the only specimen of its kind in the Collection;  $4\frac{1}{4}$  by  $1\frac{1}{8}$ . No. 14, slightly imperfect in casting, edge of broad blade bevelled, lower portion of socket long, loops below angles of blade, but touching them;  $10\frac{1}{4}$  by  $2\frac{1}{4}$ . No. 15, of bright-yellow metal, leaf-shaped, flat loops at angles of socket with broad bevel of blade;  $13\frac{1}{8}$  by  $2\frac{1}{8}$ ; said to have been found at Cootehall shoal, on the Boyle Water, county of Roscommon. No. 16, a perfect specimen of the long narrow spear, with straight edges; loops at angle of slender socket with broad bevelled blade;  $16\frac{1}{4}$ by 2 at base of blade. Found with sword No. 1, and other articles, at Toome Bar, River Bann. See p. 468. No. 17, one of the finest specimens of long, narrow spear-heads in the Collection, and in excellent preservation, socket circular, but having a ridge along its blade portion; broad feather edge, running into flat compressed loops at junction of blade and socket; nearly 23 inches long, and 21 broad at base of blade. Found at Lough Gurr, county of Limerick. See p. 223. No. 18, the largest specimen in the Collection, and the second longest known to have been found in Ireland; figured and described at p. 496. No. 19, a good example of the triangular leaf-shaped spear, with concave lower edges; 7\frac{3}{4} by 2\frac{1}{6}. No. 20, a short-bladed specimen of the straight-edged spear or javelin point, slightly decorated on blade, like the foregoing and following, by raised lines running downwards and outwards, so as to form a triangle with base of blade; loops on side of socket, which latter forms an angular projection in its blade portion; 81 by 18. No. 21, another specimen, identical in character, although not cast in the same mould; 8½ by 1½. No. 22, fractured in blade, and defective in socket, the remains of a very beautiful and rare form of long, rather leaf-shaped spear-head, with a raised cast ornament in blade, running along edge of four-sided socket, and prolonged below into long narrow loops, meeting the socket by a sharp bend, slight feather edge; 12 by 2½ at base of blade. No. 23, a fine specimen of the long narrow spear, with concave side edges, welded near the top, point slightly defective, very large lozenge-shaped loops on sides of socket, where the circular form of that portion of the weapon becomes angular; lateral ridges between loops and blade; broad, hollowed bevel

edges, socket margin decorated with a circular cast moulding, and angular engraved or punched line ornament; now 191 inches long —but was originally probably 23—and 25 across widest part of blade. "Found 10 feet deep, near the remains of an ancient fortification." No. 24, another specimen of somewhat the same variety, fractured in blade, and much battered on bevelled edge, socket circular, with very small loops below blade;  $17\frac{1}{2}$  by  $2\frac{1}{4}$ . No. 25, a very beautiful specimen of the same variety as No. 23, but wanting about three inches of point, broad, lozenge-shaped loops, with lateral projections between them and the indented edges of the blade; a cast fillet surrounds socket margin; and a dotted line, apparently punched like celt No. 32, extends along the line of junction between the blade and socket, and on each face of the angular projection of that part; now 16\frac{1}{2} by 2\frac{1}{2}. No. 26, a very perfect specimen of the same variety, and in fine preservation; figured and described at p. 496. No. 27, and all the remaining specimens on this Tray, have the loops brought into the blade, where, in some cases, they form large apertures on each side of the socket. In this specimen the blade is leaf-shaped, with small side apertures, the socket large and conical; 7½ by 2. No. 28, a short, very broad, leafshaped spear-head, with small lateral apertures, having raised flanges on their outer edges; socket circular and conical, with rivetholes not opposite each other, and appearing to have been drilled after casting—the maker probably finding the lateral apertures insufficient for retaining the weapon in its shaft;  $5\frac{7}{8}$  by  $2\frac{1}{4}$ ; found in gravel, in bed of River Clare, one foot under surface, in 1851, in townland of Pollacorragune, parish of Kilbennan, barony of Dunmore, county Galway. No. 29, another of the same variety, not so broad in bevel-edged blade; lateral apertures plain, wider, and lower down; socket large, trumpet-mouthed, and angular in blade portion; 61 by 12. No. 30, long and conical in socket; semicircular lateral apertures, with raised cast outer margins; bevelled blade edge, slightly concave; 7 by 17. No. 31, long, leaf-shaped in blade, with slightly indented margin; very large lateral apertures, with raised edges, meeting elevated lines running on each side of large conical socket;  $10\frac{5}{8}$  by  $2\frac{8}{8}$ . No. 32, a very broad, leaf-shaped spear-head; small lateral apertures, with outside flanges; 11, of which the blade is 7 by 31 in its widest part. No. 33, a long, narrow blade, in bad preservation; lateral apertures near junction with circular socket; 13\(\frac{1}{2}\) by 2\(\frac{1}{2}\). No. 34, a long, leaf-shaped spear-head; figured and described at p. 499. No. 35, a rare specimen, wanting about three and a half inches of top; lateral apertures like foregoing; the bevelled edge of blade extends down on each side of circular socket to rivet-holes; now 10\(\frac{1}{2}\) by 1\(\frac{1}{2}\). No. 36, the lower fragment of a spear-head; figured and described at p. 499.

Of the foregoing articles, Nos. 1, 3, 5, 9, 16, and 28, were—
Presented by the Board of Works. Nos. 33 and 34—by the Shannon
Commissioners. No. 15—by R. A. Gray, Esq., C. E. No. 27, by
the executors of Leslie Ogilby, Esq. Nos. 7, 21, and 32, were procured
with the Dawson collection; and Nos. 4 and 12, from that of Mr.
Murray, of Mullingar.

SHELF II.—Tray JJ, contains fifty-five spear-heads, arranged in three rows; the first, from Nos. 37 to 51, consists of small spear or javelin-heads, chiefly of the short leaf-shaped variety: and, with two exceptions, Nos. 40 and 44, without loops. The sockets in this variety are proportionably larger and more conical than those of the long leaf-shaped specimens on Tray II; and also extend almost to the very point, so that the leaf or blade portion is secondary to the socket, and forms, in many specimens, but a slight wing; for example, in No. 43. In size, the specimens in this row vary from No. 37,—which is little more than 4 inches in length, and 14 broad,—to 41, which is 5 in length, and 1 broad in the blade. Except the two with loops, and No. 47, they have all rivet-holes placed laterally, and larger in proportion to the size of the article than in any of the foregoing. See especially Nos. 41, 46, and 48: they are all perfect specimens. In No. 40 the loop is at the junction of blade and socket, and in No. 44 there are small lateral apertures in the blade. In No. 45 the rivet remains, and the socket is filled with a portion of the handle. No. 43 was found at Keelogue Ford; No. 45, in the channel of the River Boyne, above Stoneyford Bridge, county Meath. No. 50 was discovered four feet under alluvial deposit resting on limestone gravel, in the drainage cut through Brooklodge demesne, near Knockmoy, parish of Killereran, county Galway; it has been much hacked on the edges. No. 51 was found in the same locality, but only three feet under the surface.

The second row, extending from No. 52 to 72, contains a great

variety of spear-heads, bolts, and javelins. The first six, from No. 52 to 57, are of the leaf-shape variety, and vary in length from 8 to 9 inches. Nos. 54 and 57 have loops between the blade and socket. No. 52, which was found at Cutts, on the River Bann, has a portion of the oak shaft still remaining in the socket. No. 55 was found resting on gravel below bog, five feet under the surface, in side cutting of the River Deel, in the neighbourhood of a crannoge, described, upon the label attached to this article, as "a little mound, formerly an island, which contained a quantity of human bones, and some iron spears," in the townland of Joristown, parish of Killucan, county of Westmeath. See "Proceedings," vol. v., App., p. 55.

The six next specimens in this row are small, broad spearheads, numbered from 58 to 63; those which are perfect, vary in length from 4\frac{1}{8} to 4\frac{1}{8} inches. Nos. 62 and 63 are imperfect in the shafts. No. 58, short and thick, has lateral apertures in blade. No. 59, a miniature of No. 19, is figured and described at p. 498. Nos. 60 and 61 are looped on the sockets. No. 62 has a decorative line on the flat of the blade, like No. 59; and No. 63 is deeply grooved in the blade on each side of socket, like Fig. 385. The remaining nine spear-heads on this row, numbered from 64 to 72, are, except 69, of the plain leaf-shaped pattern, and vary in length from  $7\frac{1}{8}$  to  $9\frac{1}{2}$  inches. No. 64, is  $8\frac{3}{4}$  inches long, and measures only # in the length of the socket; it was found in the River Boyne, along with sword No. 104: see page 477. No. 65 was found near Headford, county of Galway. The antiquity of No. 69 has been questioned; the blade edges are very thick and blunt, and the casting ruder than the veritable antique specimens. No. 70 is remarkable for the length of the socket, compared with the blade. No. 72 was found at Athlone.

The bottom row of this Tray consists of nineteen spear-heads, chiefly leaf-shaped, and varying in length from  $17\frac{1}{3}$  to  $8\frac{3}{4}$  inches. Nos. 73, 75, 80, 81, 82, and 90, are looped in the angles between the blade and socket, and 88 has large lateral apertures, like No. 251. No. 73, a perfect, narrow, leaf-shaped spear-head;  $10\frac{1}{8}$ ; was found 5 feet deep in Logstown bog, near Blessington, county Wicklow. No. 75 was found in the Shannon, near Banagher. No. 76, slightly defective in socket, but very perfect in blade; has a portion of the charred handle remaining; was procured from Lough Gurr, county

Limerick. No. 77, of a bright yellow metal, was found at Corryolus, parish of Kiltoghert, county of Leitrim. No. 78, a very fine, perfect spear-head; 12\frac{1}{2} long; was found at Ardee. No. 79 is a spearhead, figured and described at p. 496. No. 80 is 161 inches long, slightly ornamented round socket margin; was found near Athlone. No. 81, defective in point, and injured where very thin blade meets socket; it is now 16 inches long. No. 82, of the same variety; 17½; was found at Athlone. No. 83, a very fine spear-head of the narrow variety, like Nos. 53 to 56; is only \( \frac{1}{2} \) across middle of socket; decorated margin, 17½ long. No. 84, a fine specimen of the broad leaf-shaped spear-head, of reddish-yellow metal, with very large rivetholes; 13; was found at Keelogue ford. No. 85, resembling in its short socket Nos. 71 and 77, is defective near the base; 121; found at Cornacarrow, on the Shannon, near Jamestown, county Roscom-No. 86 has been mended with modern solder; figured by mon. Beranger.—See p. 439. No. 87, a very beautiful spear-head of the narrow leaf-shape, and in fine preservation; 115 long; was found, with No. 256, two sword-blades, Nos. 22 and 83, and a great number of other antique articles of a like nature, on the lands of Knockadoo, not far from the banks of Lough Gara, the property of Viscount Lorton, by whose permission they were deposited in the Museum, on 16th May, 1840, by W. R. Wilde, Esq., and thus served as the nucleus of that great collection of the ancient bronze arms of Ireland which has since accumulated in the Academy. No. 88, defective on one side; remarkable for large size of blade-portion of socket. Nos. 89 was found in Athlone; it and 91 are leaf-shaped; No. 91 is looped between blade and socket.

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Of the foregoing, Nos. 38, 39, 41, 42, 46, 47, 48, 61, 63, 66, 67, 71, and 90, were procured with the Dawson Collection. Nos. 43, 58, 72, 75, 80, 81, 82, 84, 85, 89, and 91, were—Presented by the Shannon Commissioners; and Nos. 45, 50, 51, 52, 55, 64, 77—by the Board of Works; No. 65 was—Presented by G. J. St. George, Esq.; No. 73—by the Rev. R. Galvin, C. C.; and No. 69—by Executors of Leslie Ogilby, Esq.

GROUND-FLOOR, FIRST COMPARTMENT, END CASE.—BRONZE V.

SHELF I., Tray KK, contains twenty-five incomplete or fragmentary narrow spear-heads, numbered from 92 to 116. The only

nearly complete specimen is the arrow-head, No. 95, found at Kilbride shoal, on the Shannon; but which is deficient in a portion of the socket; 3\frac{3}{4} inches long. No. 92 is covered with an eruginous incrustation. No. 93, part of a socket, shows by what very thin edges the blades were attached to this portion, how fine the casting, and how accurate must have been the adjustment of the moulds; some of its wooden shaft still remains. No. 96, the lower fragment of a long, very narrow leaf-shaped spear, looped and decorated round socket margin, of very fine yellow bronze; analyzed by Mallet. See No. 5, Trans. vol. xxii., p. 323. "The bronze was," he says, "hard and uniform, and had received and retained a very good edge. Specific gravity, 8.581;" composition—copper, 86.28; tin, 12.74; lead, .07; iron, .31; cobalt, .09. No. 99 was found at Athlone. No. 100, the lower fragment of an unique spear-head; figured and described at p. 499. No. 101, a very rude piece of metal, in the shape of a broad arrow; 4 by 3; procured from Mr. Wakeman, and believed to have been discovered at Dunshaughlin; 4 by  $2\frac{1}{2}$ . No. 102, a very rude, flat spear-head, without a socket, and which was probably fixed in a shaft by means of a tang; procured as the foregoing. No. 106 was found at Athlone. No. 112, the remains of a very beautiful, and remarkably long, spear-head, with thin, narrow wings, and side apertures. No. 115 was found at Keelogue Ford. No. 116, the fragments of a long, looped spear-head; 15% long, with the top of the original shaft in situ, and showing that it passed up the socket to within about  $4\frac{1}{2}$  inches of the top. Found at Cutts, on the Lower Bann.

Of the foregoing, Nos. 92, 94, 97, and 112, were procured with the Dawson collection. Nos. 95, 99, 106, 110, 113, and 115, were —Presented by the Shannon Commissioners; and Nos. 103 and 116 —by the Board of Works.

SHELF I, Tray LL, contains thirty-six small spear, javelin, and arrow-heads, chiefly of the narrow, leaf-shape variety, arranged laterally in two rows, the largest specimens occupying the centre; numbered from 117 to 152. In length they vary from 1½ to 7½ inches. Nos. 117 and 136 are small arrow-heads, consisting almost entirely of the large conical sockets, and with scarcely any wing or blade portion. They are the smallest specimens of this description of weapon in the Collection. Many of the others may have been

used as hunting spears. No. 125 is figured and described at p. 498. No. 129 is of precisely the same form, but somewhat larger, ruder, and in bad preservation. No. 131 is believed to be modern. 132 has been figured and described at p. 498. No. 133, remarkable for the extreme narrowness of the blade, is  $3\frac{1}{4}$  long, and scarcely  $\frac{3}{4}$ across the widest part; it contains a portion of the ancient handle. No. 135 is an exceedingly elegant arrow-point, in form like the long, leaf-shaped spears. No. 136, the smallest arrow-head in the Collection (see Fig. 381, p. 501), was found in the River Blackwater. No. 137 was found at Dowris. No. 140, a very beautiful and most perfect spear-head, in the highest state of preservation; 6½ long; was found in gravel, five feet below the surface, near Inchamore Bridge, on the River Boyne. No. 141 is very narrow in the blade compared with its length. No. 146, a very perfect and rare form of leaf-shaped spear; 6½ by 1¾ across middle of blade; found in the Shannon, at Carrick, county Leitrim. No. 148 is remarkable for the large size of its conical socket, which extends to within ? of an inch of the extremity of the blade.

Of the foregoing, Nos. 120, 123, 129, 133, 134, 145, 151, and 152, formed part of the Dawson collection. Nos. 125, 139, and 140, were—Presented by the Board of Works; No. 127—by the Shannon Commissioners; No. 131—by executors of Leslie Ogilby, Esq.; No. 141—by Lord Farnham; and 146—by R. A. Gray, C. E.

SHELF II., Tray MIM, contains forty-nine small spear and arrowheads of the looped variety arranged in three rows, and numbered from 153 to 201. The first row consists of eighteen bolt or arrowheads, in which the length of the socket is as much as that of the blade. With one exception, No. 166—which is provided with lateral apertures—the loops are placed on the sides of the socket; in length these specimens vary from 25 to 35 inches. No. 153, a small bolt-head, figured and described at p. 500. No. 154 is 27 inches long, but the blade portion is only 11. No. 160, figured and described at p. 500, is a small specimen with indented blade, resembling No. 192. The second row, from No. 171 to 187, is made up of larger specimens than the foregoing, varying in length from 33 to 43, and generally broader in the blade than the former. Nos. 171 and 172 resemble the broad, triangular spear-head, Fig. 369, p. 498. No. 179, is a miniature example of No. 32, on Tray II. No. 180 and 181 have depressions in the blade on each side of the socket, like No. 192. No. 186 was found two feet deep in a gravel shoal, between Lough Rynn and Lough Sallagh, close to Rynn Castle, near Mohill, county Leitrim. See description of the crannoge adjoining that river, in Proceedings, vol. vii., p. 147. The third row consists of fourteen specimens, all, except No. 192, of the broad, triangular-bladed variety, with elevated angular decorations on the flat of the blade. No. 188 was found in the county Westmeath. No. 190 is figured and described at page 500. No. 191 is figured and described in p. 501. No. 192, one of the most beautifully decorated spear-heads in the Collection, is figured and described at p. 502. In No. 193, with narrow, leaf-blade, the loops are placed in the angles between the socket and blade, which latter is prolonged into them. No. 197 was drawn by Beranger. See p. 439.

Nos. 153, 156, 157, 166, and 198, formed part of the Dawson collection; Nos. 158 and 189, of that belonging to the late Major Sirr. Nos. 59, 175, 177, 180, 183, 184, and 196, were purchased from Mr. Murray, of Mullingar, county Westmeath; and were probably collected around that locality. Nos. 169 and 191 were—Presented by the Shannon Commissioners; No. 186—by Board of Works; No. 188—by Rev. Mr. Fitz Gerald; and No. 190—by Lord Farnham.

SHELF III., Tray NN, contains forty-five small spear and arrowheads, numbered from 202 to 246, and arranged in two rows. They are chiefly of the long, narrow variety; and, with five exceptions, have the loops placed on the sides of the sockets. The specimens on the top row vary in length, from 3\frac{3}{4} to 6 inches. No. 202 is of bright-yellow bronze, scarcely affected by time. Nos. 206, 212, and 214 have the loops placed in the angles between blades and sockets. No. 207 is remarkable for the position of the loops, immediately below the short socket. No. 213 is figured at page 500. No. 214 has a remarkably narrow, straight-edged blade. No. 213, ditto; figured and described at p. 500. No. 221 is remarkable for the shape of the indented blade.

The second row contains twenty-two specimens, varying in length, from  $5\frac{3}{4}$  to  $8\frac{5}{5}$ . No. 230 has a peculiar ridge on the flat of the blade on each side of the socket. No. 228 was found at Athlone. No. 234, in very perfect preservation, is a fine specimen of spearhead, with indented blade, like No. 192, but differing from it in

the angularity of the blade portion of the socket. It is highly decorated, both in casting and by hand, all over the surface of the socket, and along the sulci in the blade;  $7\frac{1}{8}$  by  $1\frac{5}{8}$ . Figured and described at p. 502.

Of the foregoing, Nos. 204, 205, 207 formed part of the Dawson collection; No. 228 was—Presented by the Shannon Commissioners; No. 235, by the Board of Works; and No. 242, by Executors of Leslie Ogilby, Esq.

CENTRAL CASE, SHELF I., Tray OO, contains twenty-three spear, javelin, and arrow-heads (chiefly procured since the Collection was arranged in 1857); numbered from 247 to 273. Some of them are the finest specimens in the Collection; but others are merely fragmentary. The three first have been cleaned, to exhibit the colour and texture of the metal. No. 247, a very perfect and gracefully-shaped spear-head, in fine preservation, with conical socket, and slight feather-edges to blade; is of reddish-yellow bronze, slightly corroded on surface, large lateral rivet-holes; 10\\\ .-- Presented by Dr. Kelly, of Mullingar. No. 248, a very perfect specimen of the narrow recurve-bladed spear-head, with large lozenge-shaped loops on socket; remarkable for the beautiful golden colour of the bronze, and the extreme smoothness of the casting—a smoothness which, in the present day, could only be produced by burnishing; 91; found in Killyon Demesne, under eighteen inches of hard gravel in bed of River Deel, a tributary of the Boyne, barony of Upper Moyfenrath, county of Meath. No. 249, a very perfect and most beautiful specimen of the broad leaf-shaped spear-head; figured and described at p. 496. No. 250, one of the finest spear-heads in the Collection, and in the highest preservation; in colour it resembles the Dowris bronze; mottled with a brown and yellow varnish, but of what date is unknown; leaf-shaped, with side rivet-holes in large conical socket; slightly recurved feather-edge; 135 by 3. This specimen forms a portion of the deposit made by the Royal Dublin Society in 1860. In the socket was found the following label:—"A copper spear, found near the old castle of Streamstown, near Banagher, 14th of January, 1829." No. 251, a very beautiful and highly decorated leafshaped spear-head, but wanting point, and fractured below the centre, where it has been both brazed and soldered; socket decorated; and figured at p. 501; cross rivet-holes.—Deposited by Sir B.

Chapman, Bart. No. 252, a most perfect spear-head, in the highest state of preservation, with wide lateral apertures, and four circular perforations; socket angular externally, with three elevations on each side, and only an inch of it below blade;  $11\frac{1}{8}$  by  $2\frac{1}{8}$ .—R. D. S. No. 253, a very remarkable unique form of narrow leaf-shaped spear-head, with narrow lateral apertures high up in blade, the lower edges of which pass down imperceptibly on long conical socket to rivet-holes; decorated on surface by a number of raised cast lines; 12 by 1\frac{3}{4}. No. 254, a broad, leaf-shaped spear-head, with wide lozenge-shaped loops; much battered, and slightly corroded; 93 by 24. No. 255, perfect, narrow, leaf-shaped socket, conical, large rivet-holes; slightly corroded; irregular on surface; 9\frac{1}{2} by 13.—Presented by T. B. Huthwaite, Esq. See Proceedings, vol. vii., p. 279. No. 256, ditto, perfect, and in fine preservation; bevel-edged blade prolonged to rivet-holes; 85 by 11; found with No. 87, and — Presented by Lord Lorton, No. 257, ditto, but somewhat smaller and plainer; 8 inches long by 1 across blade. No. 258, short, broad, leaf-shaped, perfect, but much corroded, and in bad preservation; 85 by 2. Found in the bed of the River Glyde. No. 259, a small, perfect arrow-head; 2\frac{3}{4}. Described as No. 249, in Proceedings, vol. vii., p. 130. No. 260, a much-battered and defective portion of spear-head of the broad angular variety;  $3\frac{1}{8}$  (Sirr). No. 261, upper fragment of spear-head; 3\frac{3}{4}. No. 262, portion of bronze blade, with thick circular solid midrib and bevel edges; 31. Analyzed by Mr. Mallet, who says it is "tarnished, of a deep brown colour, resembling, I believe, the appearance of the bronze called 'cinque cento;' when filed, the metal was found to be exceedingly hard, and of a yellow colour; specific gravity, 7.728." Its composition was found to be—copper, 84.64; tin, 14.01; with a trace of iron and sulphur. No. 263, fragment of spear-blade; 23. No. 264, a very perfect, short-bladed bolt-head, with narrow loops; 3 by 1 in width: from Ballindery. No. 265, a narrow, straightedged javelin, wanting point and side loops; 65; found at Ballymore, county of Westmeath; described as No. 87 in Proceedings, No. 266, a very perfect, narrow javelin-head, vol. vii., p. 130. straight-edged, lozenge-looped; 6 by 11. No. 267, a small-javelin-head, narrow in the blade; 47. No. 268, ditto, smaller, curved in point; 4½; looped. No. 269, a small, leaf-shaped javelin-point,

notched in the edge;  $4\frac{1}{8}$ ; described as No. 248 in Proceedings, vol. vii., p. 130. No. 270, a very perfect bolt or javelin-head, the only one of its class or size in the Collection, in which the side loops run into the blade; described as No. 247 at p. 130, vol. vii. of Proc.;  $3\frac{3}{4}$ . No. 271, a small narrow javelin-point, in bad preservation;  $4\frac{1}{4}$ . No. 272, a short, broad-leaf, triangular, spear-head, with broad, lozenge-shaped loops; 6 by  $2\frac{1}{8}$ .—Deposited by Sir B. Chapman, Bart. No. 273, the broken-off point of a large, long spear-head;  $6\frac{1}{4}$ .

Besides the foregoing presentations, Nos. 248 and 258 were the gift of the Board of Works.

TRAY PP contains eighteen bronze tubes, which probably formed the ferule-ends of spears, numbered from 274 to 291. No. 274, a plain bronze tube, closed at the small extremity, and imperfect at the other; now 8 inches long. Found at Curries, near Cornacarrow, on the Shannon, between the counties of Leitrim and Ros-No. 275, another of the same description, but more perfect, and having a rivet hole; 14 long; found in Lough Gurr, county of Limerick. Both of the foregoing have been brazed at the junction of the tube. No. 276, the largest and most perfect specimen of its kind in the Collection; in the highest state of preservation; of fine, light-yellow metal, with an ornamented projecting collar at top, and also at the small extremity; perforate throughout, soldered by a delicate line of junction; found in the river, at Carrick-on-Shannon. No. 277, another of the same variety, but rather shorter. Figured and described at p. 504. No. 278, ditto, but still shorter, and imperfect at joining; 12 inches long; found in the Shannon, locality unspecified. No. 279, a different variety from the foregoing. Figured and described at p. 504. No. 280, a cast, slender tube, with double ring head ornament; contains a portion of the ancient wood;  $11\frac{1}{3}$ ; found in the Shannon, near Jamestown, county Roscommon. No. 281, ditto, also cast; shorter, and in better preservation; contains portion of ancient wooden shaft; 91. Found at Carrick-on-Shannon. No. 282, cast; thick, short, with bulbous extremities; 63; found at Toome Bar, on the River Bann, three feet under surface; contains a piece of the ancient shaft. No. 283, ditto, somewhat longer, with double bulbous ornaments at each extremity; 7\frac{2}{4}. No. 284, a different variety of spear-ferule. cast; short, conical, with chisel-edge, resembling similar objects

found in Scandinavia;  $3\frac{1}{3}$ . No. 285, also cast, resembles 283, and is  $7\frac{1}{8}$ . No. 286, plain, somewhat corroded; with slight bulbous extremities;  $5\frac{1}{8}$ . No. 287, ditto, shorter;  $5\frac{1}{4}$ . The four next specimens are larger at the upper extremity, and more conical. No. 288 is cast;  $5\frac{1}{8}$  in length by  $1\frac{5}{8}$  across upper end; found in the Shannon, at Banagher. No. 289, ditto, longer; contains a portion of the ancient wooden shaft;  $6\frac{1}{3}$ ; found on site of old bridge at Banagher. No. 290, short, thick, conical, and imperfect; 3. No. 291, ditto;  $3\frac{3}{8}$  in length (Dawson).

Of the foregoing, Nos. 274, 278, 279, 280, 288, and 289, were— Presented by the Shannon Commissioners; Nos. 276 and 281—by R. A. Gray, C. E.; and No. 282—by the Board of Works.

There are only eighty-nine spear-heads, chiefly of the plain leafshape variety, in the Copenhagen Museum.

RAIL-CASE P, part of—contains ten articles connected with the subject of spear and arrow-heads, described in the foregoing details of Trays. No. 292, a metal model of the longest spear-head which has yet been discovered in Ireland, and of the same variety as No. 18, on Tray II, figured and described at p. 496. It is 32 inches long, and was—Presented by Mr. Carruthers. The original is now in the British Museum. Nos. 293 to 297, are metal models of spear-heads. Found in the county of Northumberland.—Presented by Lord Talbot de Malahide. No. 293 is plain leaf-sheaped, and 12½ inches long. No 294, ditto; a good specimen, like No. 6, figured at p. 496; it is 14\frac{3}{4} inches long. No. 295, with side apertures, is 16\frac{1}{8}. No. 296, leaf-shaped, with flat socket; 11\frac{3}{4}. No. 297, ditto, small; 73. Nos. 298, 299, and 300, small flat arrow-heads, figured and described at p. 503. No. 301, a spear or halbert-end, of bronze, with a short screw passing through one side; counter-sunk at top, as if to receive another piece of metal.

For the remainder of Rail-case P, see conclusion of Tray GGG.

The Shield,—in Irish Sciath,—and which was used in lieu of the sword-guard, should here follow in the enumeration of antique arms; but as yet we do not possess any well-marked vestiges of such articles appertaining to the bronze period. The principal materials of which such ancient articles were composed

-being probably of wicker-work and leather-were of too perishable a nature to have lasted for any length of time. All the shields figured either in our ancient manuscripts, or sculptured on early Irish monuments, are circular (see p. 299.) gift of shields from the Irish kings to their inferior chieftains were also invariably combined "war swords," or "swords for wounding." We read of "shields with the brightness of the sun;" also "fair shields from beyond the seas,"—showing that such articles were imported; likewise "golden shields: red shields," and "shields for deeds of valour."—See Book of Rights. The only bronze articles in the Academy's Collection likely to have served the purpose of shields are those embossed plates of bronze on Tray **uuu**, decorated with what has been denominated the trumpet-pattern, from its resembling an arrangement of curved horns, and regarded as a peculiarly Celtic form of ornamentation. As, however, their use has not been determined, they have been classed under the head of "miscellaneous articles." In the ancient historical tale of the Battle of Magh Rath, we read of an Irish hero having "a protecting shield with a golden border upon him; two battlelances in his hand; a sword, with knobs of ivory [teeth], and ornamented with gold, at his side: he had no other accoutrements of a hero, besides these." This shield is said to have been of such a size as to act as a protection against the weather, as well as a defence in battle.\* Walker, in his Memoir on the Arms and Weapons of the Irish, relates the discovery of a gold-adorned shield, found near Lismore. The same author. mentions the fact of a golden helmet, found in the county Tipperary, having been offered for sale in Dublin-see page For further particulars relating to shields, see the notice of them under the head of Iron weapons.

<sup>•</sup> See O'Donovan's translation for the Irish Archeological Society, p. 65.

<sup>†</sup> At p. 177 of that work, the antique alluded to above is conjectured to have been a corslet. It was sold for £600 to a goldsmith in Cork.

## SPECIES II.—TOOLS.

With the exception of the celts, which, as already stated, served the double purpose of tools and weapons, like the axe and tomahawk, there are but few implements in antiquarian collections that appear to have been used in the domestic arts of the bronze period. Those articles that may be considered the representatives of the iron tools of the present day have been arranged on Trays QQ and RR in the first compartment of the northern ground-floor of the Museum, and consist for the most part of small celts, chisels, and gouges, some of the first of which are copper. The two latter varieties were evidently furnished with handles, like modern implements for a like use; some have stops or collars to prevent them passing in too far, and splitting their wooden handles; while all the gouges have hollow sockets. The eleven plain, chisel-shaped tool-celts, arranged on the top row of Tray QQ, are smaller and slighter than any of those in the Collection of such articles already described under the head of Weapon-Tools. Of these, Nos. 1, 6, 7, 9, and 10, are of copper.

Chisels.\*—Of these there are four varieties:—1, long and narrow, with cross studs or guards projecting from the sides, like those represented by the three first figures in the following series of illustrations, drawn from Nos. 16, 25, and 36. There are nine such articles in the Collection, varying in length from 3\frac{8}{4} to 5\frac{5}{6} inches. No. 16, Fig. 392, is 5\frac{3}{4} inches long. No. 36, Fig. 393, is a very remarkably shaped and decorated tool, with shoulder studs, grooves, and loops; 4\frac{7}{6} inches long. No. 25, Fig. 394, the largest specimen of its kind in the Collection, is 7\frac{7}{6} inches in length, and 2 wide across the stop.—Presented by R. Mallet, C. E. See Proceedings, vol. v., p. 323. 2. With broad axe-shaped blades, long, slender

<sup>•</sup> In the Annals of the Four Masters, the term Fonsura is used for chisel. It is still a living word in the bérlagair na Saer, or secret craft-language of masons and carpenters. We do not yet know any ancient Celtic name for gouge.

spikes or tange, and raised collars, against which the straight wooden handles abutted, are represented by thirteen specimens,

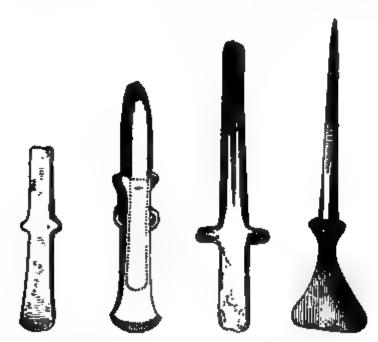


Fig. 309, No. 16. Fig. 388, No. 34. Fig. 304, No. 25. Fig. 305, No. 75.

Fig. 306, No. 78.

varying in length from 21 to 61 inches; and of which No. 75, Fig. 395, which is 61 inches long, is a characteristic specimen. 3. Figure 396 is drawn from No. 79, a long, slen-

der, thin, axe-edged palstave, with shallow grooves, and measuring 5?



Fig. 897, No. 85.

Fig. 39B, No. 21.

Fig. 299, No. 61.

Fig. 400, No. 80.

inches in length by 25 across the widest part of the blade. There are three specimens of this variety, arranged in the bottom row of Tray RR, all of about the same size. Under the head of this variety may be classed several small, narrow, chisel-edged palstave celts, varying in length from  $2\frac{5}{8}$  to  $5\frac{1}{4}$  inches; narrower in the blade than any of the true celts, and of which No. 35, Fig. 397, which is  $4\frac{3}{8}$  inches long by 1 wide in the blade, is the type. 4. Of the socketed variety of chisels, represented by Fig. 398, drawn from No. 21, which is  $3\frac{3}{4}$  inches long, there is only one specimen in the Collection.

Gouges are by no means uncommon among bronze antiquities; the Academy possesses twenty-one specimens, all, except that described at page 158, arranged on Tray RR, and of which No. 61, Fig. 399, drawn one-half the size of the original, is the type. In length they vary from 1½ to 4½ inches; and are numbered from 44 to 62; with one exception, they are all socketed, and most of them are sharp on the cutting edge.

Among the articles which were, to all appearance, used as tools, but of which the precise use is as yet conjectural, may be specified No. 80, on Tray RR, a thin, flat bronze instrument; 3½ inches long by about 2 wide in the blade, and represented by Fig. 400, page 521. Supplied with a handle, it would make a good leather-cutter. It was—Presented by the Shannon Commissioners.

Punches.—The top row of Tray RR contains four round-faced socketed punches, varying in length from 2 to 4 inches.

A small bronze Anvil,—in Irish, Inneoin,—No. 38, on Tray RR, is figured the natural size on the opposite page. It appears to have been much worn, and was probably used as a jeweller's "stake." Round the edge are a series of riveting holes of different sizes.

Address.—By Fig. 402 is represented one of three curious bronze curved address, now in the Academy's Collection, Nos. 81, 82, and 83, on the top shelf of the Cross-case between the first and second compartments on the ground-floor of the northern side of the Museum. They are nearly all alike, resembling

a cooper's hand-adze, but blunt, heavy, and about five inches along the face. Two are altogether solid. No. 82 was found in a rath at Moneygall, county of Tipperary; and No. 83, figured below, has an aperture three-quarters of an inch in diameter in the head, evidently for passing a handle through. It measures 4½ along level face, and weighs 55 oz. In the Braham I ama and find the following curious reference to

## Fig. 402. No. 88.

a bronze adze, evidently referring to pagan times:—When a female desired to clear her character by a certain ordeal, she was required to rub her tongue to an adze, not of iron, but of

Fig. 401. No. 38.

brass (Tal Umhadh); and it should be heated or reddened in a fire made either of the rowan tree or the blackthorn; and, adds the writer, "it is a druidical ordeal." That these articles could not, in their present state, have been used as edged tools is manifest from their bluntness; but one in Mr. Murray's collection has been filed or rubbed down on its edge, although cast blunt.

Among the few implements mentioned in our early Irish writings was the dirna, a weight used by the "miner who digs

\* I am indebted to Mr. Curry for the foregoing curious notice of the ordeal by licking heated metal. When a boy, I have frequently seen this custom of licking a red-hot piece of iron used in the county Roscommon as a test of truth, and giving origin to the expression, "I dare you to the tongs." The fiery ordeal was not uncommon in England.

the copper;" but we have no specimen of any such article in the Collection. In the same case with the adzes specified above, may be seen the few other bronze articles coming under the head of Tools in the Collection: viz., moulds—but they are not of any great antiquity. One of these, No. 85, a brass mould for casting coats of arms and heraldic devices, has already been described as No. 97 in the Proceedings, vol. vii., page 130. Ouncels are of the same species, see page 552.

The following list comprises all the antique tools in the Collection:—

Bronze V.—Ground-floor, North Side, First Compartment.

Shelf I., Tray QQ, contains thirty-seven bronze tools, principally of the celt and chisel-shape; numbered from 1 to 37. The top row mostly consists of small narrow celts, of which Nos. 1, 6, 7, 9, and 10, are copper. No. 8 was found in excavating the bed of the River Scarriff, county Clare. Nos. 12 to 20, in the second row, are chisel-shaped implements, with cross guards, and of which variety Nos. 16 and 25, figured at p. 521, are the types. No. 21 is a socketed chisel, figured and described at p. 521. No. 22, a solid celtshaped chisel;  $3\frac{7}{8}$ . No. 23, the narrowest chisel-edged implement in the Collection, with raised shoulders between tang and blade; 48 long, and not quite 8 across chisel-edge; it resembles a modern carpenter's sash-tool. No. 24, imperfect, a curious chisel-edged tool, with a crutch-like loop at upper end; 47. No. 25, the large chiseledged tool, figured and described at p. 521. No. 26, a long chiseledged, four-sided piece of bronze; 9\frac{1}{8} by \frac{7}{8} in the widest part. The two last rows consist of eleven palstave-shaped chisel-edged tools, varying in length from  $2\frac{5}{8}$  to  $5\frac{1}{8}$ , and of which Nos. 35 and 36, figured on p. 521, are the types.

Of the foregoing, Nos. 6, 18, 19, and 33, were procured with the Dawson Collection; Nos. 8 and 17 were—Presented by the Shannon Commissioners; No. 11—by the Executors of Leslie Ogilby, Esq.; and No. 25—by R. Mallet, C. E. No. 32 was procured from Mr. Murray, of Mullingar.

Tray RR contains forty-three tools, chiefly of the chisel, or celt-shape, numbered from 38 to 80. No. 38, a miniature anvil,

figured and described at p. 523. No. 39, the imperfect socketed portion of a narrow four-sided tool, now 3\frac{1}{8}. No. 40, a socketed hammer-edge tool, possibly used as a punch; 3 inches long by 11 broad on the blunt face; found at Abbeyshrule, county of Longford. No. 41, a socketed punch, decorated on the surface, like some of the celts on Tray 5. No. 42, a narrow socketed punch; 48 by 1/2 across the solid extremity. No. 43, a short socketed punch, broader than the foregoing. The twenty articles following are gouges, numbered from 44 to 63; and the type of which is represented by Fig. 399, from No. 61, on p. 521. With one exception, they are socketed. In No. 48, the gouge-groove ends abruptly at top. No. 49 was found at Moate, in the county Westmeath. No. 52 is a portion of the Dowris find, and was "presented to Dean Dawson by Lord Oxmantown." No. 54, the largest in the Collection. 55, with very narrow groove, was found at Monasterboice, county of No. 59 was procured from the county of Monaghan. No. 60 is not socketed, and resembles a scrape more than a gouge. No. 61, see Fig. 399. No. 62, short, plain. No. 63, a fragment of socketed gouge, or chisel, found near Newry, county of Down, and analyzed by Mr. J. R. Mallet, who described it as made of very inferior bronze, copper-coloured, soft, and "not uniform in texture. It contained cavities produced by air-bubbles in the casting, and was very much corroded; oxide of tin, carbonate of copper, and the red dinoxide of copper, were observable on the surface. Its specific gravity, 7.896." Its composition was—copper, 91.03; tin, 8.39; with traces of cobalt and antimony. See Trans. vol. xxii., p. 324. All the remaining articles, except four on this Tray, are of the broadaxed variety of chisel, furnished with long spikes and collars, and illustrated by Fig. 395, on p. 521. No. 64 is 41 inches long by 13 wide in the blade, and has been described as No. 98 in Proc., vol. vii., p. 130. No. 65, and all the others in that row to No. 73 are of the same variety, and vary in length from  $3\frac{3}{4}$  to  $2\frac{1}{2}$  inches; and many of them closely resemble some of the weapon-tool-celts, both in general outline, and in their recurved points: see, in particular, Nos. 66 and 70, the blade of the former, thin and flat, a miniature of Fig. 281, p. 385. No. 65 is decorated round the collar. The last row contains three long articles of the same variety, of which No. 75 has been figured at p. 521. Nos. 74, 76, and 78 are palstavechisel tools, with long, narrow, shallow side-grooves, and broad axe-formed blade, of which No. 79, figured on p. 521, is a typical example. No. 77 was found at Keelogue Ford. To this Tray is also attached No. 80, the thin, flat tool, Fig. 400, described on p. 521.

Of the foregoing, No. 41 was—Presented by W. R. Wilde, Esq.; Nos. 44 and 62 formed a part of the deposit made by the Royal Dublin Society; Nos. 45, 47, 67, and 77, were—Presented by the Shannon Commissioners; Nos. 50, 59, and 68 were procured with the Dawson Collection; Nos. 56 and 72, with that of Major Sirr; and Nos. 57, 74, and 76, with that of Mr. Murray, of Mullingar. For the remaining bronze articles of the tool species, see description of the Cross-case at p. 552.

#### SPECIES III. - FOOD IMPLEMENTS.

When a people have not only acquired a knowledge of metal, but have become acquainted with the manufacture of

articles of that material, they cease to be nomadic, and become agricultural,—tilling, sowing, and reaping,—and do not altogether depend on the produce of the chase, or fishing, for their subsistence; although both pursuits continue to afford food, as well as amusement. The accompanying illustration, drawn the natural size, is from a bronze Fish-hook,—in Irish, duban,—No. 106, in Rail-case P, the only article of the kind in the Collection.

The great antiquity of corn in Ireland has been generally acknowledged by archæologists, and references relating to both wheat and mills are to be found in Irish writings so early as the middle of the seventh century.\*

SICKLES—Corran—of bronze have been frequently obtained in Ireland, and eleven such articles are displayed on Tray

\*See Dr. O'Donovan's papers in the Dublin Penny Journal, vol. i. p. 108 and 282; also the author's Essay on the Food of the Irish in the Dublin University Magazine for 1856; likewise an article on a bronze falze, or curved pruning-knife, by Mr. C. C. Babington, in the Report of the Cambridge Antiquarian Society, No. IX.; see also the Archeological Journal, vol. ii., p. 186; and vol. vii., p. 802.

so, on the second shelf of the first compartment of the ground-floor, on the north side of the Museum. In shape they vary from a short angular implement, with a slightly curved blade, 6% inches long, and a through socket an inch and a-half high, of which Fig. 404, from No. 9, is a good example; to a curved diminutive bronze representation of the modern iron reaping-hook, shown by No. 10, Fig. 406, which is slightly imperfect at top, and measures 7 inches round the convex



Fig. 404, No. 9.

Fig. 406, No. 6.

edge, from the margin of the oval socket to the end of the blade. Of these varieties, there are but two of each in the Collection. The second illustration, Fig. 405, No. 6, is the most beautiful specimen in the Museum, measuring 6½ inches from the point of the blade to the angle which it makes with the oval socket, which latter is 3 inches high. In shape it is the type of the majority of bronze

sickles found in this country, but is more highly decorated than any other yet discovered. It was found in the county of Westmeath. These ancient we all rivet-holes, and were probably atnuch longer handles than those used with ticles in the present day; several are sharp

on both edges. Writers have been in the habit of describing such articles as the sacred sickles, with which the Druids of old cut the mistletoe; but we have no authorities bearing on this subject of sufficient weight to warrant us in assigning any other use than that of corn-sickles to the articles figured and described above. Vallancey has figured an implement like No. 10, and described it as "a small securis, called by the Irish a Searr, to cut herbs, acorns, mistletoe, &c.; it has a double edge, very sharp."

The Academy's Collection is particularly rich in culinary articles of bronze and brass, including no less than 60 specimens of ancient cauldrons, coolers, pots, skillets, buckets, pans, dishes, ewers, jars, bowls, cups, and other drinking-vessels. They may be arranged into those which were hammered out of single pieces, those formed of several plates riveted together; and the cast-metal vessels, most of which are in high preservation. Nearly all these articles connected with the preparation of food have, for convenience sake, been arranged in the lower glass-case of the Western Gallery, and in the bottom of the first and second compartments on the northern ground-floor. They have been placed according to their several varieties, and are numbered consecutively.

Cauldrons, &c.,—in Irish Coiri,\*—are of great antiquity, and from the date of the introduction of the first by the Tuatha De Danaan, as related at page 353, to a comparatively recent period; very frequent mention is made of such articles in our Irish annals and Bardic histories. Vessels of this description were heir-looms in certain families, and formed part of the royal property of our early kings; and some were even made of the precious metals. We read of celebrated cauldrons, with mystical properties, such as Ovid described; or like that which Shakespeare has introduced into the scene of the witches' incantation in Macbeth. A magical cauldron is referred to in the description of the destruction of the Palace of Conaire Mor, at Bruighin da Berga, A.C. 25. Another was the cauldron called the "Caire Ainsicen," belonging to Eoghan Buihe, one of the Dalriadic or Iberno-Scotic kings, who held his court at Dunstaffnage, in Lorne, "which was used to return its own proper share to each, and no party ever went away from it unsatisfied; for, whatever quantity was put into it, there was never boiled of it, but what was sufficient for the company, according to their grade and rank."+ In the ancient account of the ori-

<sup>\*</sup> Coire in the singular glosses Cullendarium.—See Stokes' Irish Glosses, p. 90.

<sup>†</sup> See Battle of Magh Rath, O'Donovan's translation for Irish Archæological Society, p. 51.

gin of the Boromean Tribute, preserved in the Book of Leinster, we read of bronze cauldrons for brewing the ale of Magh Moain and others, so large that two sheep could be boiled in them together; another, at Tara, it is said could contain twelve hogs, &c. In A.D. 599, the monarch Aed, son of Ainmire, marched into Leinster with an invading army, and encamped near Baltinglass in the county Wicklow, and in the immediate vicinity of the residence of Bran Dubh, the Leinster King. The latter was visited by his relative, St. Moedóc, of Cluainmór, in Carlow, who presented him with a sword, a shield, a cauldron, and a flesh-fork. Conlaedh, the artificer of St. Bridget, made the fork; and Gressach made the cauldron for the son of Niall Laeghaire, by whom it was given to Dubthach of Dublin, the chief poet of Erin, who gave it to his relative, Bishop Fiacc, from whom it came in succession to Dunlang, after whom it was inherited by Aihill, who bequeathed it to Moedóc, the person that gave it to Bran Dubh.\* The history of other vessels, of a like nature, has been preserved. Cauldrons and vats are mentioned in the Book of Rights, as part of the tribute paid by one king to another; and in the will of Cathar Mór, now preserved in the Book of Lecan, reference is made to a certain cauldron possessing wonderful mystical properties. When Philip of Worcester, then Lord Deputy in Ireland, pillaged Armagh, in 1184, he carried off the friar's cauldron.

The following illustrations represent typical specimens of ancient culinary vessels found in Ireland. Figure 407 is drawn from No. 12, the largest many-pieced cauldron in the Collection, measuring 19 inches across the mouth, 12 in depth, and 67 in girth. It is composed of a number of pieces of thin bronze, each averaging 3½ inches broad, and decreasing in length near the bottom. These plates bear the marks of hammering; and are joined at the seams with rivets, averaging about half an inch asunder; these rivets have sharp conical

<sup>\*</sup> Extract from the Book of Leinster, supplied by Mr. Curry.

heads externally, and some were evidently ornamental, as they exist in places where there are no joinings; and in the circular bottom portion, they are large and plain. The upper margin of this vessel is 2½ inches broad, and decorated with a

punched or hammered ornament,
like that seen in
some of the gold
tiaras, and resembling the modern process of corrugating.
Its outside edge,
next to the solid
hoop, has a double

Fig. 407. No. 12.

line of perforations in it. This vessel has large solid bronze bandles, attached by ornamental staples to its rim. Such bronze rings, if found by themselves, might readily be mistaken for armillæ. It was—Deposited by the Royal Dublin Society.

Many such vessels have been found in Ireland at different times, and several were exhibited at Belfast, in 1852. It was in a vessel of this description that a part of the great collection of articles of a peculiar kind of bronze was discovered at Dowris.\* See Proceedings, vol. iv, p. 360. One of the most perfect cauldrons found in Ireland is that described by Mr. M'Adam, in his learned and ingenious paper on "brazen cauldrons," published in the Ulster Journal of Archæology, vol. v., p. 82; the following extract from which applies with equal force to similar vessels in the Academy's Collection:—"The thinness and evenness of the plates, the manner in which these are strengthened by the corrugated rim, and the ingenious mode of fixing the handles so as to

<sup>\*</sup> See Mr. Cooke's description, in the Proceedings, vol. iv., p. 425. See also a drawing of the vessel he described in the Academy's scrap-book, p. 46. See likewise the cauldron, figured in Shirley's "History of the Territory of Farney." A very fine cauldron, the property of Lord Bandon, is preserved at Castle Bernard. Similar vessels have been found in Wales, and also in Scotland—see Prehistoric Annals, p. 274.

are proofs of very considerable mechanical skill. The extreme thinness of the metal, which exceeds anything of the kind used in our modern cooking vessels, may be taken, perhaps, as a proof of the costly nature of the material; but it is also a proof of the skill and judgment of the workman. The labour and dexterity required for hammering out the bronze into such thin and regular sheets must have been very considerable. Their surfaces are almost as even and level as that of modern sheet brass, produced with all the advantage of machinery; and there is no doubt that the metal thus hammered has more tenacity than any rolling process would have given to it."

The two next engravings, drawn from Nos. 13 and 14, also in the lower case of the Western Gallery, represent articles of the same variety as the foregoing, but somewhat different in size and shape. No. 13 is a conical vessel, formed of eight sheets of thin bronze, joined with the same kind of conical rivets, except in the attachment of the circular bottompiece. It is 14 inches wide at the mouth, 12½ deep, and 50

in girth. The rim is plain, and strengthened by a strong bronze wire passed within its edge. The massive handle-

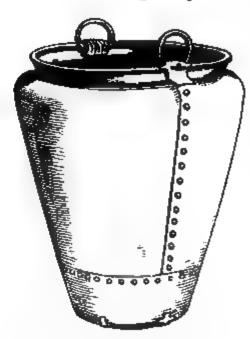


Fig. 408, No. 13.

Fig. 409, No. 1&

rings are decorated, and attached to the vessel by ornamental staples, with stout strips passing down, both within and with-

It bears the marks of the long-continued action of fire. No. 15, Fig. 409, is a high bucket, or cauldron, formed originally of three sheets of very thin Dowris-coloured bronze, one for the circular bottom, and two for the side and rim, where they are turned round a stout bronze ring—all fastened by large flat-headed rivets—181 inches deep, 15 wide in the mouth, and about 56 in girth round the broadest part of the shoulder. It has two slight four-edged handle-rings, passing through very large decorated loops turned inwards, but overlapping the slightly everted edge, so as to strengthen the rim, as well as to give security to the purchase. It originally stood on six feet, each forming an inverted cup. men is now imperfect in several places, and no article in the Collection exhibits the same amount of repair, as shown by the great number of places in which it has been patched; and from the care taken in the mending, it is manifest that it must have been intended for holding fluid. The bottom portion is one of the most ingeniously hammered pieces of bronze in the Collection. This article has been analyzed by Mr. J. W. Mallet, who thus reports upon it:—"From its size, and the thinness of the plates of which it was made, it displays a degree of skill and neatness in the treatment of bronze most remarkable, as existing at so early a period as this vessel probably belongs to. The metal is not very hard, but extremely tough, and is of a beautiful rich bronze-yellow colour ('gold bronze'), scarcely altered by time. Specific gravity, 8.145." Composition—copper, 88.71; tin, 9.46; lead, 1.66; with a trace See Transactions, vol. xxii., p. 324.

Of these riveted, many-pieced vessels there are six in the Collection, all arranged in the Western Gallery.

The second variety of antique bronze vessels consists of those in which a single plate of metal was hammered into a shallow pan or dish, as shown by the accompanying illustration, drawn from No. 16. It measures  $25\frac{1}{2}$  inches from out to out of the open, and is  $9\frac{1}{2}$  deep; is in the most perfect state of

preservation, smooth on the outside, but presenting a number of linear indentations radiating from the centre, apparently

> the tracks of the tool by which the metal was made to assume its present shape; the lip is an inch wide, and rudely decorated with crescentic punched marks. It

Fig. 410. No. 16.

was found seven feet deep in a turf bog at Labern, parish of Killorglin, county of Kerry, in 1849, and—Presented by Rev. W. De Moleyns. Nos. 18 and 19, also in fine preservation, resemble the foregoing in all respects, except in size. There are altogether twenty specimens of single-piece bronze vessels, not cast, in the Collection. Among the most remarkable articles of this sub-variety is a beautiful thin, saucer-shaped vessel, No. 28, which has been cleaned to show the rich red-dish-golden colour of the bronze; it was hammered out of a single piece of metal; decorated upon the internal surface with a number of curved tooled indentations; it is 7\frac{2}{3} inches wide,



Fig. 411. No. 28.

Fig. 412. No. 30.

and has two small holes in the rim, as if for suspending it to a wire. It was found in the crannoge of Cloonfinlough, county Roscommon, described at p. 226.—Presented by the Board of Works. Figure 412 is drawn from a very gracefully shaped vessel, exquisitely wrought out of a single piece of sheet brass, as thin as ordinary writing paper, with a globular bottom, and having the handle strengthened by a flat T-shaped projection, extending both above and below its edge; a double

corrugated indentation passes beneath the lip. It is 7½ inches across the mouth; and the handle, which is 6 inches long, has a hammered-up ornament within the circular expansion at its end. This vessel was found in the River Shannon, at Bishop's Island, between the counties of Roscommon and Westmeath.—Presented by the Shannon Commissioners. Fig. 413 is a very beautiful cast bronze cup, or drinking vessel, of bright-yellow metal, resembling in shape the wooden article figured at page 211, and having a decorated handle, terminating in an animal's head at top. This is one of the most classic bronze articles in the Collection.

It is  $5\frac{3}{4}$  inches in the long diameter of the oval mouth, and  $2\frac{7}{8}$  deep; and was found in the river, between Lough Marraw and Lough Oscar, near Keshcarrigan, county Leitrim.

-Presented by the Board of Works.



Fig. 418. No 37.

Cast-metal vessels, of both bronze and brass, have been found in great numbers throughout the country, and are frequently presented for sale. They appear to have been in common use before the general introduction of similar articles of cast-iron; and, in addition to the foregoing, chiefly consist of Pots—of which there are seventeen specimens in the Collection, numbered from 38 to 54, and arranged partly in the Western Gallery, and partly in the lower space on the northern side of the Museum, except the two largest, which stand at the foot of the North-western Gallery stairs. In shape these vessels differ from modern iron pots, in their greater height and narrowness, and in some examples by the length of the upper member; a few, however, are quite glo-In size they vary from a capacity for holding one quart to nine gallons of fluid. That here figured, although not by any means one of the oldest, is remarkable for its great size, peculiar shape, external ornamentation, and having a spout inferiorly, showing its probable use in brewing or distillation. This vessel of compact sonorous brass is one of the largest and most perfect ever found in Ireland; it rests on three decorated feet, stands 26 inches high, is 68½ in girth round the widest portion, and 14 across the mouth. A

large projection, attached to the bottom, shows where the metal was poured into the mould. The spout is 4 inches long, and the legs 9 high. The letters and date, 1640, are in the same relief as the other decorations on the external surface. It is said to have been

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Fig. 414. No. 47.

found in the neighbourhood of Macroom, county Cork.

The three small vessels figured below, from Nos. 60, 58, and 55, in the bottom space of the first compartment in the northern side of the ground-floor, and of rather classical shape,

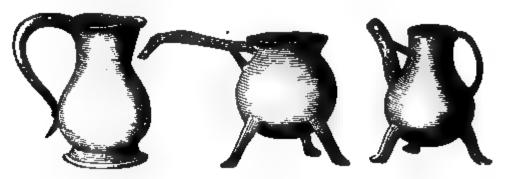


Fig. 415, No. 60.

Fig. 416, No. 58.

Fig. 417, No. 55.

are good specimens of small metal articles for culinary and domestic purposes, used in Ireland in former times. Figure 415 is drawn from a copper can or ewer, 8 inches high, which was

<sup>\*</sup> See notices of brewing in Ulster Journal of Archaeology, vol. vi., p. 286. See also Annals of the Four Masters, under A. D. 1406.

—Presented by the Shannon Commissioners. Figure 416 is drawn from No. 58, a small bronze globular pot or skillet, in a state of great perfection, with a horizontal handle, 6 inches in length, and bent at end; it is 6\frac{3}{2} inches high, and 16\frac{1}{2} in circumference. The third illustration is drawn from No. 55, one of three bronze ewers, with decorated spouts, placed in the same locality as the foregoing; it is 8 inches high, and has been mended by rivetted portions attached to the bottom, but has no remains of solder. It was found in a bog at Drumnaspar, parish of Upper Badoney, county Tyrone. For the remainder of the culinary vessels, see details of these articles from pages 539 to 546, and also p. 553.\*

ARTICLES CONNECTED WITH DISTILLATION.—The frequent and very early notice of cups, drinking-horns, and other vessels of a like character, show that the Irish were acquainted with other beverages than milk and water. Mead, or Metheglin, chiefly derived from honey, was used in very remote times; and popular tradition asserts that Heather-beer, said to have been introduced by the Northmen, was a common drink in the middle ages. Some of the decorated drinking vessels, already alluded to at page 265, were, it is said, employed for "quaffing mead." In Irish writings of the fifteenth and sixteenth centuries, constant reference is made to spirituous liquors, such as aqua vitæ [uisge beathadth]; and we still possess some remnants of the apparatus for distillation, the knowledge of which process has never been lost, although we have no Irish names for either still or still-worm.† On

An article like Fig. 416 has been figured by Dr. Petrie in the Dublin Penny Journal, vol. i., p. 84, in illustration of his valuable papers on the Fine Arts which appeared in that publication. A vessel similar to Fig. 417 has been figured by Vallancey, from a specimen in the Museum of Trinity College. See Collectanea, vol. iv., page 42.

<sup>†</sup> The earliest notice of distillation in Ireland appears to be that discovered in the Red Book of Ossory, a MS. supposed to be as old as the fourteenth century, in which this passage occurs—"Simple aqua vita is to be made in the following manner:—Take choice one-year old wine, and rather of a red than of a thick sort, strong, and

Tray TT are six fragments of bronze or brass alembics, or still-heads and worms, numbered in continuation of the food implements already described. Three of these are still-worms, the most perfect of which, figured below, is complete, and consists of eight convolutions, of soldered brass piping, joined at acute angles, each pipe about half an inch in diameter. They are fastened down to two strong flat bars by means of bent straps and square-headed rivets, the latter occupying the spaces between the pipes. The length of each convolution is

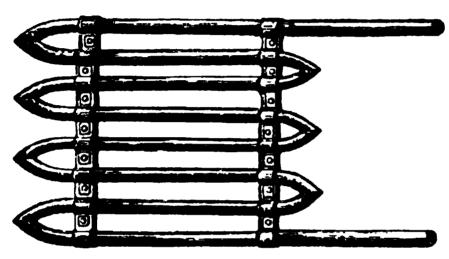
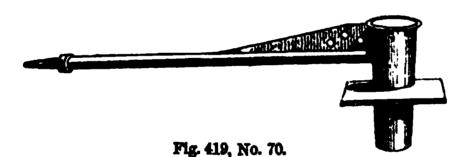


Fig. 418, No. 67.



10 inches, and the total breadth of the article,
7. One extremity of this ends in a kettle-spout shape, evidently for the delivery of the condensed liquor; the other end was probably attached to the still-head. Fig. 419 is drawn from No. 70, a still-head about 4 inches high, and 11

long in the horizontal tube, the small end of which was inserted into one of the extremities of the worm. About midway down the rather conical head is attached a broad square flange, 3\frac{1}{8} inches wide, which acted as a stop, and prevented the head passing down too far into the still. The upper

not sweet, and place it in a pot, closing the mouth well with a *clepsydra* made of wood, and having a linen cloth rolled round it; out of which pot there is to issue a cavalis, leading to another vessel having a worm [serpente.] This latter vessel is to be kept filled with cold water, frequently renewed when it grows warm, and the water foams through the cavalis. The pot with the wire having been placed previously on the fire, distil it with a slow fire until you have from it one-half of the quantity of wine that you put in." I am indebted to the Rev. James Graves for the foregoing extract. It has also been published in the Ulster Journal of Archeology, vol. vi., p. 285.

angle, between the head and horizontal tube, has been strengthened by a stay of metal, which is perforated both for lightness and ornament. The whole apparatus is exceedingly small and delicate. We have no precise knowledge either as to the shape of the still, to which these objects were ancillary, or of the method employed for distillation.\* Both the articles figured above were found at the depth of four feet in that part of the Bog of Allen near Ballykillen Hill, King's County, and were—Presented by William Watson, Esq.

Spoons (Spon6ga) and Ladles (Liacha)—amounting to thirty-three specimens—are arranged on Tray UU, and illustrated by the four following types. With few exceptions,



Fig. 420, No. 73.

Fig. 421, No. 78.

Fig. 422, No. 98.

Fig. 423, No. 74,

however, none of these are of great antiquity compared with other bronze articles in the Collection. Figure 420 is drawn from No. 73, a rude massive copper spoon, thick and undecorated in the handle, the only one of this material in the Collection; 9½ inches long, and 2 broad in the bowl. Figure

• The two articles represented above have been figured by Mr. Clibborn in the Ulster Journal of Archaeology, vol. vii., p. 38. See also Moorewood's Treatise on Distillation; and the "History of Insbriating Liquora." The most perfect specimen of ancient still-head and worm is that in the Museum of Trinity College; the portion of tube ending in the head measures 4 feet.

421 represents an exceedingly thin ladle of bright-yellow brass, No. 78, which measures 13½ inches in length, and 4½ across the bowl; has an everted lip, which is prolonged into a T-like flange that runs round the handle, similar to that in Fig. 412, and was evidently intended for giving strength to that portion. From the paper-like thinness of the metal, it could scarcely have been cast in a mould, although it does not bear marks of hammering. Of this sub-variety there are three specimens in the Collection, see p. 545. It was found in the bed of the Shannon, at Grose's Island, near Carrick, county Leitrim, in 1847, and was—Presented by the Shannon Commissioners. No. 93, Fig. 422, is one of those middle-age spoons with long, slender, round handles, terminating in decorated knobs or figures, and known as "Apostle Spoons," of which there are fourteen perfect and six imperfect examples on Tray uu; it is 5\frac{3}{4} inches in length. The fourth figure is drawn from No. 74, a comparatively modern article, 61 inches in length, highly decorated on both sides, and socketed for the insertion of a wooden or bone handle. For details of spoons, see page 545.

Bronze or brass knives have not yet been received into this Collection; and we have not heard of any being discovered in Ireland. The only other food implement of antiquity, to which reference has been made in Irish history, is the celebrated spit, called the *Bir Deckin*, referred to in Dr. Petrie's Essay on the "History and Antiquities of Tara Hill," see Transactions, vol. xviii., p. 212. There are three nutcrackers of brass in the Cross-case, described at page 553.

The following are the details of the Culinary articles:—

BRONZE, V.—GROUND-FLOOR, NORTH SIDE; FIRST COMPARTMENT.

FIRST COMPARTMENT.—SHELF II., Tray 88, contains eleven sickles; numbered from 1 to 11, and varying in length of blade from 4½ to 6 inches. No. 1, angle-bladed; imperfect at point; socket 2½ inches long, and not thorough; rivet-holes as in all the other speci-

mens; a grooved cast ornament on side of blade; found in the county Cavan. No. 2, perfect; slender; of bright gold-coloured metal; blade 48 from its point to the angle formed with upper part of socket; has a midrib, and side-bevels, like some of the curved swords; socket oval, and 17 long; both edges of blade are remarkably sharp. No. 3, imperfect at point of ornamented blade; socket 3 inches high, with raised fillet round the margin. No 4, perfect; of same description as No. 2, but blade and socket form a more acute angle. blade is 5 inches in length, and traversed by a raised ornament, passing round the oval socket, which is 2\frac{3}{5} high, and has a projecting margin inferiorly. No. 5, very plain, and more curved than any of the foregoing; 4½ in blade; oval socket 2½ high. No. 6 is figured and described at p. 527. No. 7, rude, plain, imperfect in socket, which turns round into hooked blade, which latter is 4\frac{1}{2} long; found in the county Tipperary. No. 8, fractured; socket 11 in length; thorough length from point to posterior edge of imperfect socket, 4\frac{1}{2}; large rivet-holes; resembles No. 9. No. 9, ditto, figured and described at p. 527. No. 10, figured and described at p. 527. No. 11, reaping-hook-shaped, like No. 10, but somewhat different in curve of perfect blade; much corroded; measures 7\frac{3}{4} on convex edge; socket imperfect.

The Culinary Vessels referred to at p. 528 here follow in succession, and are numbered consecutively with the sickles. The collection of these articles extends from those in the first bottom glass-case in the Western Gallery, Bronze II. and is continued under Bronze III. and IV. to the foot of the North-Western Staircase, and throughout the bottom shelf of the first compartment on the northern side of the ground-floor of the Museum to the adjoining Cross-Case.

## Bronze, II., III., and IV.—Western Gallery, Lower Case.

Lower Case.—Bronze cauldrons, and other many-pieced riveted vessels.—No. 12, the fine bronze cauldron figured and described at p. 530. No. 13, a smaller article of the same variety, more conical; figured and described at p. 531. No. 14, a larger and ruder specimen of the same form, with flat unornamented rivets joining the four large plates; heart-shaped; decorated with grooved marks under the lip; mended in several places; 19 inches wide in open; about

16 deep, and 32 in girth; massive ring-handles, each 4½ inches in diameter. The spear No. 6 was found in this vessel. No. 15, the large conical vessel, like a plate-bucket, figured and described at p. 531. No. 16, a single-piece dish or pan, figured and described at p. 533. No. 17, another specimen of the same variety, but smaller and shallower; radiating marks on bottom; lip plain, and patched in two places; 19½ from out to out, and 6 deep; found in a deep bog at Sallow-Glin, near Newtown-Sandes, Barony of Iraghticonnor, county of Kerry, and—Presented by William Sandes, Esq. (see Proceedings, vol. vi., p. 48). No. 18, very perfect; about same size as former; tool-markings very distinct; decorated lip; 191 in diameter by 6 deep; found in the bank of the river between Bray and Enniskerry. No. 19, ditto, but flatter in the bottom, and sides more upright; mended in several places round edge; 22 by  $16\frac{1}{2}$ . No. 20 a small specimen, much worn in bottom; 17½ by 5½ deep. at Cornacarrow, near Jamestown, county of Leitrim.—Presented by Shannon Commissioners. No, 21, the bottom portion of a large vessel of very thin sheet brass, having on the outside the marks of punching and hammering, like those on No. 16. No. 22, the upper portion of a large cauldron of thin sheetbrass, hammered out of a single piece, and not bearing any ostensible marks of joining; no bottom; looks like top of such a vessel as No. 14; four rivet-holes on each side of upper margin, mark where the staples which held the handles were affixed; 17 in diameter; covered with a whitish incrustation, from lying in water for a great length of time; found at Cloonfinlough, county of Roscommon (see p. 226).—Presented by Board of Works (see Proceedings, vol. v., App.). No. 23, a circular brazen dish, decorated on the lip like No. 17; differing in material from any of the foregoing; complete, but much battered; 16 across mouth; found in a morass, near the spot crossed by the Williamite army at Aughrim, county of Galway, in 1691; believed by the finder to have been part of a kettle-drum.—Presented by W. H. Hartigan, Esq. (see Proc., vol. vii., p. 109.) No. 24, a circular brass vessel, hammered out of a single piece. The sharp edge of the upper margin and the rivet-holes around it show that it either had an attached rim, or formed the lower portion of a larger vessel; rudely patched on one side; 12 by 6. No. 25, a similar article, but somewhat smaller, and evidently much used in former times; made of a

single sheet of thin brass, which has been cut in several places, probably with the intention of its being used for other purpose; 9 wide. No. 26, a small dish, formed of one sheet of thin bright brass; everted lip; in imperfect preservation, covered externally with an incrustation from fire;  $10\frac{1}{2}$  wide in mouth, and about  $3\frac{1}{4}$  deep; found at old castle of Kiltubrid, King's County, in peaty soil, five feet under surface.—Presented by Board of Works (Proceedings, vol. v., App. p. 57). No. 27, a small circular cup-like vessel; formed of a piece of thin sheet brass; surrounded at top by a number of rivetholes, in some of which the studs still remain. No. 28, the beautiful, cleaned bronze bowl, figured and described at p. 533. No. 29, a circular vessel, with handle, of the saucepan-shape; hammered out of a single piece of brass; round in bottom; everted lip, with double corrugated indentation on side, below that part;  $6\frac{1}{2}$  across mouth; handle 6 inches long; found in River Blackwater, a mile below Charlemont, between the counties of Armagh and Tyrone.—Presented by Board of Works. No. 30, another article of a like description, figured and described at p. 533.—Presented by Shannon Commissioners. No. 31, a stout circular brass vessel, quite perfect, hammered out of a single piece; sides contract to everted lip; 10½ wide, and 4½ deep. No. 32, a large greenish-yellow brass pan, or basin, formed of two pieces, the bottom, and the rim with its lip, joined by mutual interlapping, like that employed in the manufacture of tin-ware; joining of side-piece effected by stout rivets; slight crescentic hammered ornament round broad horizontal edge; patched in several places round the bottom; 14½ from out to out, and about 4 deep. No. 33, a shallow single-piece bowl of stout bronze; 9\frac{3}{4} in diameter. No. 34, another vessel of the same description, formed of thin sheet brass; very imperfect; originally of two pieces, the bottom, and the side and lip; 4 high, 51 wide; patched with very rude rivets; found, filled with coins, under a mound at Sheemore Hill, barony and county of Leitrim; given to Dean Dawson (with whose Collection it was procured) by—C. D. Latouche, Esq. This article, and No. 32, properly belong to the many-piece rivetted bronze articles, but are placed here for convenience. No. 35, a bronze pan, with broad lip and raised centre, probably cast; 14 inches in diameter, and 3 deep. Its history is unknown. No. 36, another vessel of the same description, but hammered out of thin metal; margin of broad lip and bowl indented; 16 in. diameter by  $2\frac{1}{8}$  deep.

The true cast bronze vessels commence here with No. 37, the beautiful bowl, of classic shape, figured and described at p. 534. The following sixteen articles are bronze pots, of various sizes, each standing on three legs:—No. 38, a globular cast metal pot, wanting one leg; 11½ inches high, and 9 wide in the mouth.—Presented by Arthur A. Nugent, Esq. No. 39, ditto, with wide handles, defective in lip; 12½ high, 9½ across mouth. No. 40, like a modern pot, with small handles attached below rim; perfect, with the exception of one foot; 11½ high, and the same wide. Found with No. 43 in Lough Ramor, near Virginia, county of Cavan. Both—Presented by Lord Farnham. No. 41, a large metal pot; wide at bottom; perfect; sides turning gradually into rim; feet decorated; three raised lines spread from each foot over bottom; 123 high, and 13 wide in mouth. No. 42, another, almost identical in shape, ornament, and size. Both have ridges round their top margins. Nos. 43, 44, and 45, all of the same variety, are placed in the bottom of the third glass-case under the Spears; BRONZE, IV. They are wide at the bottom, narrowing towards the top, with high feet. No. 43, perfect, has three transverse raised lines on side; trident-shaped ornaments spring from the base of each leg; angular handles attached between junction of rim and conical pot; 15\frac{3}{4} high, and 12 across mouth. Found and presented along with No. 40. No 44, a very perfect specimen, in fine preservation, similar to foregoing in almost every particular, but somewhat higher in legs; upper members of handles slope downwards; 16½ high, 12 in mouth. This vessel was recently sold to a brass-founder in Dublin as old metal. No. 45, a rare and peculiar specimen, which originally stood on three very high legs, one only of which now remains; very flat at bottom; three broad, raised bands encircle the side: handles differ from all other specimens, except No. 51, in forming graceful loops instead of acute angles; 18 high,  $2\frac{1}{3}$  wide; defective in lip.

Nos. 46 and 47 stand at the bottom of the north-western staircase. The former a very fine boiler, in the highest state of preservation, with broad bottom narrowing towards the top, like No. 47; is  $64\frac{1}{2}$  inches in girth, 21 high, and  $13\frac{3}{4}$  across the mouth; three raised lines encircle the side of the vessel externally, and at top are

the letters AD. It was originally intended to have a spout, and a metal plug marks the site of that aperture; the legs are decorated with three lines, which spread over the vessel to the central bar. In the Sirr Catalogue it is described as having been obtained from a bog at Lowtown, county of Westmeath. No. 47, the large brewing boiler figured and described at p. 535.

### Bronze, V.—Ground-floor, Northern Side, First Compartment.

Lower Shelf.—No. 48, a small bronze pot, imperfect originally; mended in the bottom by rivets; 9½ high, 10 across mouth (Dawson). No. 49, ditto, also imperfect; 82 high, and 10 wide. No. 50, ditto, but more perfect, and of very thin metal; 91 high, 10 across mouth.—Presented by R. W. Reynell, Esq. No. 51, a very perfect bronze pot, or skillet, with three elevated lines on side, and also decorated on the lip; handles round at angles; 81 high, 93 wide across mouth. The three next specimens are globular. No. 52 stands on three legs, imperfect at top, mended in several places; 31 inches in girth (Dawson). No. 53, globular; defective on side of lip; 9½ high, 30 in girth (Dawson). No. 54, ditto, also imperfect in lip; it is  $27\frac{1}{2}$  in girth. The cast metal pots end here, and the remaining articles are of a different variety of vessel. No. 55, a cast metal ewer, figured and described at p. 535. No. 56, ditto, imperfect at one side, decorated spout; 7½ high; found at Lecale, and—Presented by Lord de Roose. No. 57, ditto, of a larger size, perfect, one leg apparently attached subsequent to casting; spout decorated in the form of an animal's head; 10½ high; found at Swords. No. 58, a small globular bronze skillet, figured and described at p. 535. No. 59, a copper jar, formed of three pieces,—the body of the vessel, the bottom, and the handle, the latter fastened by rivets; the seam in the back brazed, and the bottom inserted by interlapping, like modern tin-work; it is 13 inches high, and 27 in girth; it was probably originally intended for a powder vessel, and, as such, was used by the insurgents at the battle of Vinegar Hill; it is much battered on one side, said to have been caused by a shot. No. 60, a copper jug, figured and described at p. 535. No. 61, a brass mortar, decorated on the outside, solid handles; 6 high, and 7 wide at mouth; marked with raised cast letters A K. No. 62, bottom fragment of a cast bronze vessel; found in River Deel, county of Meath.

—Presented by Board of Works. No. 63, a highly ornamented piece of bronze, fractured in centre;  $10\frac{1}{2}$  inches long; evidently the handle of a skillet. No. 64, a bronze curved moveable small pot-handle, twisted in the torque fashion; a very rare culinary article. Nos. 65 and 66 are two solid, rather conical pieces of finely cast bronze; one grooved on the surface, both perforated at chamfered top; apparently moveable pot-legs. For remainder see Cross-case at page 553.

SHELF II., Tray TT, contains six articles employed in distillation, and numbered from 67 to 72, in continuation of the culinary vessels already described. No. 67, an ancient still-worm, complete; figured and described at p. 537. No. 68, the fragments of another still-worm, somewhat larger in the tubing, and consisting of two and a half turns; fastened to the back-stay by means of wedge-like pieces of metal, which originally held in its place a thin overlapping strap; the back-stay is perfect, and measures 97; found in Inchmore Island, Lough Ree, Shannon. No. 69, fragments of a stillworm, much broken, and consisting of portions of five tubes, and the two back-stays arranged on the same principle as the two foregoing articles; the tubing is very thin, and joined at the angles by a more perfect and elegant form of brazing; it was found in 1828 beneath the foundation of an old castle of the O'Dowds, at Carrownrush, parish of Easky, county of Sligo. No. 70, the still-head figured and described at p. 537. No. 71, a specimen of bronze tubing of the same diameter as that in No. 67; 13 inches long; fractured; it appears more likely to have formed part of a worm than a fragment of a still-head tube. No. 72, the tube of a still-head precisely resembling that of 67; the conical end of the tube and flange where it was inserted are the same in both specimens;  $12\frac{1}{2}$  inches long.

Tray UU contains thirty-three spoons and ladles, numbered from 73 to 105. No. 73, a rude copper spoon, figured and described at p. 538. No. 74, an ornamented spoon, figured and described at p. 538. No. 75, a tinned brass spoon; 6\frac{1}{2}\$ inches long; having a curious trade-mark on the inner side of the bowl, consisting of three spoons, enclosed in a circle, evidently struck after casting; described as 52 in Proceedings, vol. vii., p. 161.—Presented by Dr. Ringland. No. 76, a large single-piece ladle, imperfect in bowl; 12\frac{1}{2} long, 4 wide; found in townland of Ardress, near Kesh, county

of Fermanagh.—Presented by Board of Works. No. 77, a small brass ladle, with cup-like bowl riveted to handle. No. 78, a ladle, figured at p. 538. With few exceptions, all the remaining spoons are very thin and shallow in the bowl, and have slender handles. imperfect in both bowl and handle. No. 80, of remarkably thin brass, perfect in bowl, but wanting greater portion of handle. No. No. 82, handle of spoon, with circular stud at top. No. 83, ditto, with portion of bowl attached.—Presented by Very Rev. Dean Butler. No. 84, fragment of a circular spoon-handle, with decorated top. The two next rows contain fourteen complete spoons of the fashion called Apostle Spoons, with wide shallow bowls, slender stems, and decorated tops; in length they vary from  $5\frac{1}{2}$  to 7 inches, and, with the exception of No. 90, which has a figure at top of stem, all the handles terminate in circular seal-like projections. No. 93 has been figured and described at p. 538. The last row consists of articles of a ruder description, and, with one exception, have flat handles. No. 99 was found at Ballyhennan, barony of Fassadinan, county of Kilkenny. No. 102 was—Presented by Lord Farnham. In No. 103, the shank is grooved, like that of a marrow spoon. No. 105, the end of the handle of which is trident-shaped, was, with No. 98—Presented by the Shannon Commissioners. Nos. 87, 101, and 104, were procured with the Dawson Collection; and No. 91 was deposited by the Royal Dublin Society.

For remaining Catalogue of food implements, see description of Cross-Case at p. 553.

# SPECIES IV.—ARTICLES OF HOUSEHOLD ECONOMY AND DOMESTIC USE, ETC.

Bronze articles employed in household economy, or for domestic purposes—not enumerated under the head of utensils used in the procuration or preparation of food, or for the decoration of the person—are here classed together, and consist of needles, or bodkins, tobacco-pipes and boxes, candlesticks, locks, keys, inkstands, &c.; and also razors, tweezers, and such like objects connected with the toilet.

NEEDLES—in Irish, Miadh and Snaithe, a needle)—of

bronze, may be considered of an age prior to the use of steel for such purposes. Figure 424 represents, the size of the originals,

two bronze needles, Nos. 77 and 78 in

Fig. 494. Nos. 77 and 78.

Rail-case P. There

1

are altogether eighteen bronze needles in the Collection, ranging from 15 to 41 inches in length; besides several on Find Trays.

Brass Tobacco Pipes have been occasionally found in Ireland: that here figured the natural size,

riously formed
as, either cast
en brazed together above
and below.
Tobaccoboxes, either

cast, or manufactured out of thin sheet brass, with removeable or hinged lids, generally oblong in form, averaging about 6 inches in length, and embossed or engraved with various devices on the exterior, have been found in considerable numbers in Ireland, and presented at different times to the Academy. Most of them are Flemish. They appear to have been first introduced about the end of the seventeenth century. There are thirteen of these arranged on Tray vv.

Bronze or brass candlesticks of sufficient antiquity to be placed in a Museum are generally ecclesiastical, and to be considered under the head of articles of that class. In the first Cross-case on the ground-floor may be seen three specimens of this variety, and some curious antique snuffers, &c.

Locks and Keys [Glas, a lock, Ecchair, a key].—We have no ancient stock, door, or box locks of antiquity in the Museum; but there is a large and varied collection of bronze keys, several of which are curiously decorated in the rings. The only antique brass lock in the Collection is that here figured, the actual size, from No. 111 in Rail-case P.

At first sight, this unique article would appear to be the ring of a brooch, which, in form of ornamentation, as well as shape and size, it greatly resembles. It certainly belongs to the period of the ring brooches; but whether used as a padlock solely, or attached to a pin, is now matter of speculation.



Fig. 426. No. 111.

All the bronze or brass keys, amounting to forty specimens, varying in length from 1\frac{3}{2} to 4\frac{1}{2} inches, are arranged on Tray ww, in the top shelf of the first compartment on the northern ground-floor; for the details of which see page 551. They may be divided into the latch or lifting key, like that still in common use in the Orient, and the ordinary warded key, of both which varieties the five following illustrations are



Fig. 427. No. 80.

Fig. 428. No. 59.

30, a flat piece of brass; 1½ inch long. Figure 428, from No. 59—Deposited by the Royal Dublin Society—is in high preservation, and

Figure 427 is drawn from No.

measures 15 inches in its greatest length. The three following cuts illustrate different varieties of the bronze warded-key, with decorated ring. Figure 429 is drawn one-half the natural size from No. 45, a padlock key, curiously decorated at top, and having broad wards cleft along the front edge. It appears to be that found in the Abbey of Thurles, county Tipperary, in 1830, and figured in the Dublin Penny Journal, vol. iv., p. 237. No. 54 has a diamond-shaped ring, and is 3½ inches long. No. 46, a very perfect and highly decorated door-key, 2½ inches long, with a

pipe in the shaft; --- was found at Tory Island, on the coast of Donegal, and-Presented by Lord George Hill. For the details of the other keys in the Collection, see page 551.







No. 64.



Fig. 431. No. 46.

Totlet Articles.—Compared with Scandinavian Collections, there are but few toilet articles of bronze in the Museum of the Royal Irish Academy. In the former we find a large assemblage of tweezers, some of them decorated with gold; and knife-like articles in great variety, that appear to have been used as razors, thus showing that the Northmen

either shaved or plucked the beard, probably both, whereas the ancient Irish allowed the hair to grow on the face, as intended by nature. Of the three annexed cuts, the first, drawn from No. 104, in Rail-case P, represents a tweezers, 3 inches long, and

decorated all over the surface; one of

the few articles of this description found in Ireland. It was procured from the Ballinderry crannoge. No. 101, Fig. 433, in Rail-case ≥, represents the largest specimen of three bronze articles, which, it is conjectured, were used as razors,—in Irish, Ailtin. It is all of one piece, 31 inches long,



14 wide; has a stout flat stem, decorated on the surface, with

an aperture near the top; and has exceedingly hard, sharp side-edges; the two other specimens are smaller. There is a large specimen in Trinity College Museum. The third illustration is drawn from No. 96, one of three similar articles, with decorated stems and fork-like terminations, the most rational use of which would appear to be connected with the toilet.

The following list comprises all the articles of Household Economy, except those in Rail-case P, and in the First Crosscase on the northern side of the ground-floor:—

## BRONZE, V.-GROUND FLOOR; FIRST COMPARIMENT.

SHELF I., Tray VV, contains twenty articles, chiefly connected with the use of tobacco, and consisting of pipe-stoppers, bronze pipes, a decorated pipe-case, and fourteen boxes, principally oblong, and used either for tobacco or snuff; numbered from 1 to 20. No. 1, a bronze pipe-stopper, in the shape of a horse's leg and foot, very well cast. No. 2, a pipe-stopper, resembling the hind-legs of a frog; 3 inches long. No. 3, a pipe-stopper, in the shape of a human leg and foot. No. 4, a bronze pipe; figured and described at p. 547. No. 5, a decorated pipe-case of wood, inlaid with brass; extreme length 81. No. 6, the bowl of a brass pipe; belonging to No. 5. The remaining articles on this tray are boxes. No. 7, a tobacco box;  $6\frac{1}{4}$ inches long, 2 wide, and 11 high; hinged; top ornamented with the figure of Frederick the Great, beneath which is the inscription, "Fredericus Magnus Borussorum Rex," and the date 1767. No. 8, ditto, of about the same size, copper sides, brass lid and bottom, with several devices of animals, and a Dutch inscription upon it. No. 9, ditto, and of similar materials; the engraved devices on it represent drinking and hunting scenes. No. 10, ditto, ditto, with scriptural devices raised upon the cover; described as a Walloon tobacco-box, with a Flemish inscription; said to have been "found on the person of a soldier slain in the battle of the Boyne."-Presented by the Rev. W. Thompson (see Proceedings, vol. vi., p. 10). No. 11, an oval brass tobacco-box; 45 long; with loops at end, as if for passing a strap through; graven devices; date, 1734. No. 12, a circular puzzle-lid tobacco-box; 31 in diameter.—Presented by Major

General R. K. Birch, R. A. No. 13, a flat oval tobacco-box;  $4\frac{7}{8}$  long; engraved device, with Flemish inscription. No. 14, an oblong, fourcornered box, top and bottom copper, sides inlaid with brass; covered with floral devices. No. 15, a snuff-box, brass, with motherof-pearl inlaid corners, each having a raised figure making up the date 1690, and bearing the following inscription on the side:—"This box was made out of one of the brass cannon used at the siege of Londonderry, and was presented by Mr. Thomas Locke to Henry Maxwell, M.P., December, 1825." On top is a circular piece of mother-of-pearl, with the name "Farnham, 1847," written thereon, and covered with a watch-glass; on the bottom are warlike devices, and the Derry motto, "No Surrender." No. 16, a flat oblong brass box, four corners;  $5\frac{1}{3}$  by  $2\frac{2}{3}$ ; on the lid is a view of Haarlem. No. 17, an oval tobacco-box, well made, and in fine preservation, highly engraved;  $6\frac{7}{8}$  by  $1\frac{7}{8}$ ; found at Vinegar Hill in 1798. Nos. 15 and 17 were—Presented by Lord Farnham (see Proc., vol. iii., p. 529). No. 18, another, of the same shape, but somewhat smaller, and bearing at top, a calculating table, and the date "1497;" found at Bantry Bay, and—Presented by F. M. Jennings, Esq. No. 19, an oblong brass box, with embossed cover, having a Dutch inscription; 6 by 13. No. 20, another Dutch box, very perfect; 91 inches long, 2 wide; covered with well-graven devices.

Tray www, contains forty bronze keys, numbered from No. 21 to 60, varying in length from 1\frac{2}{3} to 4\frac{1}{4} inches. No. 21, the smallest in the collection, rude, flat, no pipe, but instead thereof, a small pro-Nos. 22, 25, 31, 33, and 37, are of the same description. No. 30, is a latch-key, flat, figured and described at p. 548. No. 31, was found at Trim, and—Presented by Dean Butler. No. 34, another latch-key, of a different shape, with a ring. Several of those on the two first rows are very rude, and apparently of a great age. In the third row are several remarkable specimens. No. 39 is like the key of a beer-cock. No. 40 resembles No. 59, figured at p. 548. In No. 42, the ward portion is at a right angle with the plane of the ring. No. 44, a bad specimen of the same variety as No. 45, which is figured and described at p. 549. The fourth row contains seven specimens of a larger size than the foregoing, probably door-keys. No. 46, is figured and described at p. 549. No. 51 is decorated on the outer side of the ring. No. 52 is a unique specimen, with a broad ring,

having a square knob attached to its upper edge. No. 54 is figured and described at p. 549. No. 55 is decorated in the ring. No. 56, is a plain, rude specimen, unwarded. No. 57, a very perfect and highly decorated house-key;  $4\frac{1}{8}$  long; found in an old castle near Newtownbarry, county of Wexford, and, together with No. 33, was — Presented by Lord Farnham. No. 58, a rude latch-key. No. 59, a lifting key, figured at p. 548. No. 60, a rude, bulky latch-key.

FIRST CROSS-CASE, GROUND FLOOR, NORTH SIDE—Contains some articles connected with the species Tools, Food Implements, and Household Economy, which could not be attached to trays. SHELF.—Nos. 81, 82, and 83, are the three bronze adzes described at page 523, and of which the last has been illustrated by Fig. 402. No. 84, a brass button-mould, in three pieces; 7½ inches long, and 7 wide (Dawson). No. 85, a small brass mould for casting coats of arms, referred to at p. 524, and described in Proceedings, vol. vii., p. 130. All these relate to tools. On the Second Shelf are several articles connected with Household Economy, and numbered in continuation of the keys on Tray www. No. 61, a brass door-bolt; 8½ inches long, by 1½ wide, and § thick. No. 62, a brass candlestick; 9½ high, massive, having large holes in the socket, and a broad circular flange about half-way down the pillar; "found in Dunshaughlin bog, county Meath." No. 63, another candlestick, rudely decorated in the pillar, large holes in socket, no flange; 10g high. No. 64, ditto, but more modern, and with a slender pillar; 9½ high; found in what would appear to be the remains of a crannoge, at Manorhamilton, county of Leitrim, and—Presented by Rev. John Hamilton (see Proceedings, vol. vii., p. 346). an antique snuffers, without a top to the box; 63 long; found in Clonave Island, Lough Derravarragh, county Westmeath. No. 66, an imperfect snuffers, slighter and of more modern form than the foregoing; 61. No. 67, a small hinged implement, apparently the top of an article for holding a taper;  $3\frac{1}{4}$  long. No. 68, a small ouncel or steel-yard, a description of instrument very common in Ireland, especially in those parts of the country where flax and yarn were much sold until the compulsory use of the standard weights and measures; quite perfect, beam quadrangular, wanting weight, much worn; 8\frac{3}{4} inches in length (Dawson). No. 69, ditto, small, beam circular, complete in all respects, even to the straps, iron

hook, and copper weight;  $7\frac{3}{4}$  long. No. 70, the beam of an ouncel,  $10\frac{1}{2}$  long; found in the river at Athlone, in 1849, and—

Presented by the Shannon Commissioners—see Presentation Book, p. 62. No. 71, a small circular brass box for holding standard weights;  $1\frac{5}{8}$  in diameter; found in the demesne of Stranocum, in levelling the bank of the River Bush, about twenty feet below the surface of the ground.—Presented by James R. Hutchinson, Esq. (see Proceedings, vol. vi., p. 161). No. 72, ditto, smaller, and apparently more modern;  $1\frac{3}{8}$  wide across lip; found in a bog near Cullybackey, county of Antrim.—Presented by Rev. Dr. Reeves. Nos. 73, 74, 75, and 76, are four bronze moveable legs, possibly belonging to inkstands, the longest measuring  $3\frac{1}{4}$  inches, and the shortest 2. For the remainder of articles of this species, see Rail-Case P, at p. 597.

In the bottom space will be found some Food Implements, in addition to those already described and numbered in continuation of the spoons on Tray UU, at p. 546. No. 106, a copper cheese-scoop;  $5\frac{1}{8}$ . No. 107, a rim of thin brass, like top of saucepan; 3; found in River Glyde.—Presented by the Board of Works. Nos. 108, 109, and 110, three brass nut-crackers; the latter rude, and decorated with concentric circles, like some of the gold ornaments; 3½ (Sirr); the two others are apparently more modern, and each about 4 inches in length. No. 111, the bottom of an ancient chafing-dish; 45 in diameter, perforated in bottom. No. 112, ditto, wide mouth, narrow bottom, cast;  $5\frac{1}{4}$  at top, 2 deep. No. 113, ditto, imperfect in rim; 4\frac{3}{4} by 2. No. 114, ditto, massive, in good preservation, square moveable stud in bottom, as if for stem; 4½ by  $2\frac{1}{2}$ . No. 115, ditto, plain, perfect;  $5\frac{1}{4}$  wide,  $2\frac{1}{4}$  deep. No. 116, a bronze chafing dish, tolerably perfect, one handle remaining, aperture in bottom capable of holding vessel No. 114. Nos. 117 and 118, two small thin brass plates, fellows, imperfect in edges; each 6 wide (Dawson). No. 119, the small handle of a brass skillet, like No. 63, only  $4\frac{1}{4}$  long.

### SPECIES V .- ARTICLES OF DRESS AND PERSONAL DECORATION.

Personal decorations form a large numerical proportion of the bronze articles in the Museum, and at present amount to upwards of five-hundred specimens, excluding those on "finds." This part of the Collection is increasing daily, each addition presenting some new variety, either of form or ornamentation. It consists of cloak, mantle, or hair-pins, brooches, bracelets, arm-rings, buttons, buckles, fasteners, armour-decoration, and massive rings of different sizes, connected with costume, &c.

For convenience' sake, and in order to display them in the best possible light, according to the present construction of the Museum, the bulk of this part of the Collection, especially the smaller articles, has been arranged on four large Trays, **XX**, **XY**, **ZZ**, and **AAA**, placed between the swords and spears in the Western Gallery. A few may be seen in Rail-case **P**, and the remainder on Trays from **BBB** to **GGG** in the top shelf of the Middle Compartment on the northern side of the ground-floor.

PINS, FIBULÆ, and BROOCHES—styled in Irish, dealg, briar, duillenn, and brolagha [spear-like], es, cartait, casán, roith croir, milech, and breathnus—have been discovered in Ireland in greater numbers and variety, and of more beauty in design and workmanship, than in any other country in Europe. In these articles the process of development is displayed in a most remarkable manner; for, from the simple unadorned pin or spike of copper, bronze, or brass, the metallic representation of the dealg, or thorn, to the most elaborately wrought ring-brooch of precious metals—the patterns of which are now re-introduced by our modern jewellers—every stage of art, both in form and handicraft, is clearly defined; not one single link is wanting, as may be learned from a glance at those three large Trays, XX, YY, and ZZ, in the Central Compartment of the Western Gallery. In the first stage, all the artist's powers seem to have been exhausted on the decoration of the pin itself, or in the development of the head, which was enlarged and modelled into every conceivable shape, and decorated with a great variety of patterns. When it was scarcely possible to effect further improvement on the head, a shank-ring

was added, either by means of a rivet passed through the head, or a simple loop running through a hole in the neck. In the next step the ring was doubled, or several distinct rings were employed. Then the ring itself became the chief object in this article of personal decoration, and the acus, or pin, was of secondary importance. Finally, the ring was enlarged and flattened out, decorated, enamelled, covered with filigree, and jewelled, until, in those magnificent specimens of silverand gold, and *findruine*, or white metal, found in Ireland of late years, it reached a degree of perfection which modern art can with difficulty imitate.

The three annexed figures, drawn the natural size from Nos.

170 and 184, Tray xx, and 399, on Tray **ZZ**, afford the reader a good idea of the simple pin, with decorated head and shank, used as a cloak-fastener, or for any of the ordinary purposes to which such articles are applied in the present day. Figure 435, from No. 170, on Tray XX, represents the length, shape, and style of ornament, in a great number of simple pins. Figure 436 is drawn from No. 184, in which the crooked head resembles that Figure 437 illustrates No. of a horse. 399, on Tray zz, one of the most elegant antique articles of its class which has yet come to light. The pin itself is bronze, with an elaborate scroll, formed in the casting; and to a groove in the raised portion which traverses the centre of this indented scroll has been soldered, in high relief, a thin line of silver or white metal. It would not appear that

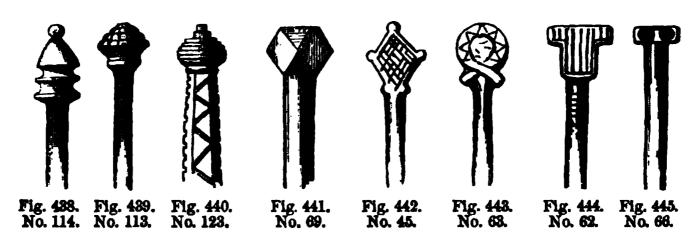


Fig. 485. Fig. 486. Fig. 487 No. 170. No. 184. No. 399

the depressions on each side were filled with enamel; but in No. 383, on the same Tray, a portion of the enamel paste still

fills up the indented scroll, but it has been constructed on a different plan from that figured above.

By the eight following figures, drawn from Nos. 114, 113, 123, 69, 45, 63, 62, and 66, on Tray Ex, are shown typical varieties of pin-head ornamentation in articles of this description; they are all drawn the size of the originals. Some of these simple pins, which vary in length from 3 to 12½ inches, have flat shanks, several of which are decorated for about a third of their length. In others the lower third of the pin is quadrangular, and in a few there is an elevation at the juncture of the upper and middle thirds, as is well shown in Fig. 453, on p. 559, like those in several examples of bone pins on



Tray C, see Fig. 216, page 233. The pins in the foregoing cuts vary in length from 2½ to 7½ inches. No. 69, Fig. 441, was found in the Ardakillen crannoge, and—Presented by the Board of Works. Crannoges and street-cuttings have been the principal localities from which these small pins have been procured. No. 123, Fig. 440, was—Presented by the Shannon Commissioners. Varied as are the designs and style of ornament shown by the eleven foregoing figures, they scarcely include even the typical forms. So minute is the decoration, both in casting, scroll-work, and inlaying in many of these small pins, particularly of those in the top row of Tray ZZ, that it can only be properly seen with the aid of a large lens.

The next form of pin-head decoration, shown by the three following illustrations, may be frequently observed in Irish

collections. It consist of a circular disk, varying in size from 2 to 11 inch, with a central conical stud, placed at first horizontally, and then vertically, or on the same line with the shaft, which is bent into its obverse side. Of this variety there are three horizontal, and fifteen vertical specimens on Tray xx. At first, the circular top plate was plain, and the central boss small, as in No. 127, which has a stem 112 inches long, and was probably used in the hair; but as the pattern became the fashion of the day, this portion was decorated both in casting and by the punch and graver, and at the same time the cone was enlarged, as shown by Figure 448, from No. 207. In the Museum of National Antiquities at Copenhagen, there are a few pins of this description (probably Irish)—see Fig. 239 in Worsaae's Oldsager—in one of which the bronze disk is covered with a thin plate of gold pressed into all the lines of the ornament on the plate,—a form of jeweller's work specially alluded to in our annals, where Ucadan is said to have covered brooches with gold,—see page 354. Some of

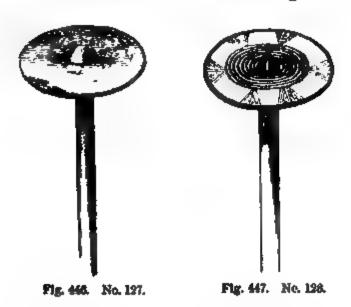
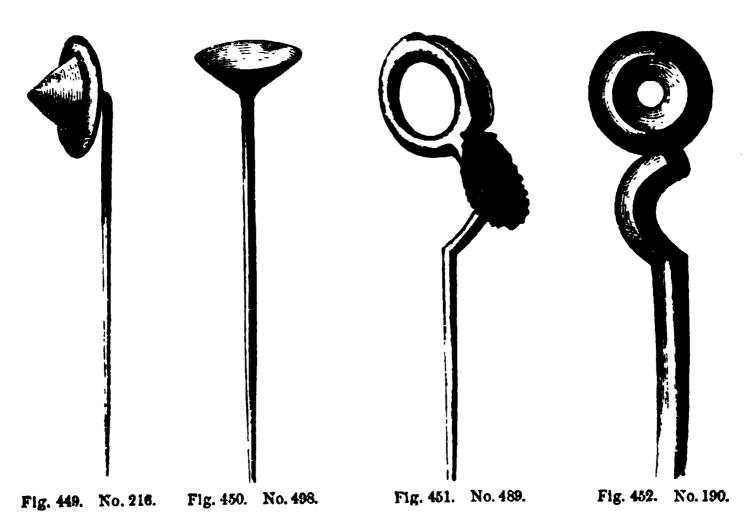


Fig. 448. No. 207.

these circular-headed pins are very long, as in No. 128, one-third the true size, which measures 13½ inches, but No. 207 is only 5½ inches in the stem and 2½ across the top. The same form was repeated in those manufactured from bone: see Fig. 213, page 234. The foregoing are drawn one-half the natural size; other specimens have been found in Ireland with the

disks of greater magnitude. See Dublin Penny Journal, vol. iv., p. 45.

By the four following cuts, drawn to a scale of one-half the true sizes, are illustrated other forms, differing somewhat in shape from the former. No. 216, Fig. 449, on Tray XX, is a small pin,  $4\frac{5}{8}$  inches long, with a head similar to that in Fig. 448, but having the central mamillary projection larger, and the boss proportionably less. No. 498, on Tray XX, Fig. 450, which is 5 inches long, has a cup-like head, similar to the termination of some of the gold penannular rings; there are four such specimens in the Collection. No. 489, Fig. 451, is a very rare form,  $5\frac{1}{2}$  inches long; with a rivetted plate upon the shoulder, and a sunken oval disk on the front of the ring,



both evidently intended either for enamel or the settings of stones. No. 190, Fig. 452, is likewise a very rare specimen, and measures  $5\frac{1}{4}$  inches in extreme length.

Figure 453, No. 126, on Tray EE, illustrates the decorated shank, central elevation, and cleft head, with recurved spires, like that seen in the pommels of some Danish swords, it is 101 inches long, and the portion here drawn is the natural

size. There are three other such sword-shaped pins in the Collection, Nos. 125, 131, and 188; but in the latter, the head scrolls are wider, and turned downwards and inwards. No. 422, on Tray **ZZ**, Fig. 454, is a plain pin, with a wheel-like head, having a small hole in the neck, through which a ring passed. See Proceedings, vol. vii., No. 497., p. 130. The third illus-



tration, Fig. 455, from No. 195, represents, of the true size, the largest of a series of ten Hammer-headed pins, Nos. 192 to 201, on Tray XX, that appear to be of a special and peculiarly Irish pattern. Each has a central aperture, with a pectinated

Fig. 455. No. 195.

set of jewel-holes, generally five, above the flat semicircular enamelled face. The elevated cast decoration within the margin is usually of the bird-pattern, and only rises to the level of the enamel, except in No. 197 where it

Fig. 458. No. 126. Fig. 454. No. 422.

stands out in high relief. In No. 194, the enamel paste, now of a dirty white colour, is quite perfect; and portions of it remain on other specimens. In two examples the hammer-head is circular. In length they vary from No 192, a miniature specimen, 3½ long, to No. 200, which is 11½ inches. Walker

figured an article of this description in 1788: see "Historical Essay on the Dress of the Irish," pl. ii., fig. 4.

Among the many curious devices intended as dress-fasteners by the ancient Irish jewellers, that here figured the natural size, No. 495, on Tray Ez, is one of the most remarkable. It was cast, and in colour of metal, and style of make, much resembles No. 190, figured on page 558; the boss with the cross, placed below the curve, represents the decorated face of the head. There are two other pins on Tray Ez of a similar description, and about the same size and shape. But for their small pin-like ends, they would give the impression of having been used as ear-rings.

The Ring-pins and brooches are illustrated

by the fourteen following cuts. Figure 457, drawn the natural size, from No. 420, on Tray zz, shows a

Fig. 456. No. 495.

very rare form, with three rings passed through apertures in

Fig. 457, No. 420.

Fig. 488, No. 308.

Fig. 450, No. 305,

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the elongated head. It is 3 inches long, was found in the

Dunshaughlin crannoge, and—Presented by Mrs. Rothwell. There is no other article of this pattern in the Collection.

Figure 458 is drawn from No. 308, a long pin: with a flat head, like that of the ancient stylus, for smoothing the wax on the tablet; and, possibly, it and its fellow, No. 307, may have been used for that purpose. The ring which passes through the neck, consists of a piece of stout brass wire, tapering slightly from the centre to both extremities. The portion here represented is the natural size, but the extreme length of the article is 6½ inches. In Figure 459, drawn the true size, from 305, on Tray TX, the head is circular, and highly decorated in the casting, and the ring very small and penannular. It measures 7½ inches; there is an amber stud in the centre.

The four next cuts illustrate still further the development of the ring. In the first, Fig. 460, No. 235, is shown the type of a great number of small pins, in which the broad ring is barely sufficient to pass round the square decorated head, to which it is attached by means of a cross-rivet, which allows it to play like a swivel. Of this description of pin there are as



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Fig. 460, No. 235. Fig. 461, No. 268. Fig. 462, No. 334.

Fig. 463, No. 297.

many as twenty-five specimens in the Collection, varying in length from 15 to 7 inches. In some of the smaller ones it requires a strong lens to ascertain that the ring and head have not been cast together. Figure 461, drawn from No. 263, on Tray \*\*x\*, shows a simple ring-pin, in which the ring narrows where it passes through an aperture in the square de-

corated head. No. 324, Fig. 462, is  $3\frac{1}{3}$  long, and its ring is double, except where it passes through the shaft. It was procured from Gweedore, and—Presented by Lord George Hill. Of this sub-variety there are sixteen specimens in the Collection. In No. 297, on Tray \*\*, represented the natural size by Fig. 463, the outer margin of the ring is decorated with quatrefoil ornaments, the lowest of which forms a loop, evidently for the attachment of a pendant; it has a long, flat, decorated acus, 6 inches in length. All the pins from No. 295 to 299 have pendant loops attached to the rings.

In the annexed illustrations, drawn the natural size. may be seen two varieties of rings not uncommon in collections of Irish brooches. The first, No. 302, Fig. 464, is one of a series of four articles of the same description, arranged on Tray www, in which the ring assumes the form of a coin or flattened disk, with a notch at top to allow it free-play in the loop. In some specimens the disk of the coin-pin is quite smooth and plain; but in others, as in that here represented, it is highly ornate, and decorated with a funiform pattern. No. 326, also on Tray www, is

Fig. 464, No. 302, Fig. 465, No. 120.

shown a rude plain specimen of the penannular pin, decorated in the inferior enlargements. This form of ring, as well as that in which the ends are united by a cross-bar, will be further illustrated in the descriptions of the silver ring-pins and brooches. Before proceeding to the description of the fully-developed ring-brooch, so far as that article is represented in bronze, we beg to direct attention to a series of seven stout

rings, about the size of thumb-rings, with projecting knobs on

their external margins, which have been arranged on Tray ZZ, from Nos. 479 to

485, and of which the two annexed illustrations, drawn the true size, are typical representatives.



Fig. 466. No. 479.

Fig. 467. No. 484.

In Mr. Murray's collection, already referred to at p. 252, and some illustrations of which have also been presented to the Academy, there is a bronze pin, the ring of which is very similar to No. 479, figured above, so that the use of these articles is no longer a matter of conjecture. Their weight and shape may be one of the causes why so few have been found with the acus attached. There is an aperture in that portion of the ring, between the knobs, so that possibly a third decoration may have occupied that space. In No. 483, a portion of the ring is gilt, and the studs are decorated with central discs of red enamel. It resembles a finger-ring more than any of the others. For further details of these articles, see p. 589.

Ring-brooches—in which the acus merged into a mere fastener, and the designer's and caster's arts were chiefly expended on the ring—arrived at great perfection in bronze articles, although far inferior in size and workmanship to those composed of silver or findruine. The large bronze ring-brooches, about forty-eight in number, are chiefly arranged on Tray \*\*x\*, from Nos. 331 to 371. See, also, those numbered from 463 to 470, on Tray \*\*z\*. In breadth of ring they vary from 1\frac{1}{8}\$ to 4\frac{2}{5}\$ inches, the largest of which, No. 371, Fig. 468, is penannular, broad, flat, and almost plain below the narrow

Fig. 468. No. 371.

hoop, which plays in the slightly decorated wide loop of the pin,

which is 7\frac{1}{2} inches long; it is quite plain on the obverse, and is the only specimen of the kind in the Collection; it was—Presented by the Shannon Commissioners.

In a few instances, small brass wire helices, with sharp extremities, encircle the upper portion of the ring, evidently intended to secure that portion to the garment

in which the brooch was fastened, and thus prevent its swinging about. See No. 470. In addition to the decoration produced

by casting, three other forms of ornamen-

tation were employed in the construction of these brooches, viz.: by gilding, jewelling, and enamelling. An example of the first may be seen in No. 469; of the second, in several specimens, but in particular Nos. 343, 344, and 346, the first and last of which are figured on the opposite page. Examples of the third form may be seen in Nos. 339, 345, 347, 350, 352, 356, 359, 362, 368, 467, and 470; the colour of the enamel was generally white (now cream-coloured) or red, and in a few rare instances blue. In some cases the ring is separate below (penannular), to allow of the passage of the pin through it, so that when fixed the pin was oblique, and the ring hung perpendicular; but, as already stated, a cross-bar (often highly decorated) joined the large broad portions of the ring. See Nos. 361, 369, 469. In a few instances, the circle of the ring is occupied with a cross-stay, or sometimes three bars uniting in the centre, an example of which is shown in Fig. 469. In some rare cases, a decorated cross was attached to the lower margin of the ring, in addition to the decoration in its centre,

of which there is a very good specimen in No. 466, on Tray

Ez. The gilding is of two kinds, either by a wash, or a thin plate of gold pressed into the sunken ornament within the outer rim. The stones have been lost in many specimens, but their "settings" still remain; and, where present, they are all amber—that substance being most easily procured when these articles were manufactured. In some instances there were as many as eight amber studs in the front of the brooch. The enamel generally occupied an oval or triangular space on each of the lower enlargements of the ring; and where it is deficient, as in No. 359, 364, and 468, may be seen the roughened surfaces of the cavities on which it was laid.

The two following figures, unreduced, from Nos. 344 and 346, on Tray www, illustrate the middle-sized bronze decorated and jewelled ring-boooches. In the former the pin is 4 inches

Fig. 469. No. 844.

Fig. 470. No. 846.

long, and in the latter 61; in which it is also highly decorated, and raised above its usual level into the form of a human head, covered with the hood of the cochal, like that seen in the figure of the ancient steersman, given at page 321. In both the rings are jewelled. In Fig. 469 three bars occupy the centre of the ring; and in both, but especially Fig. 470, the character of the ornament is precisely that shown on the decorated bones figured and described at page 346, figures 229, 230, and 235. The outer margin of the ring in No. 346 is

also decorated. It was found in the Woodford river, near Ballyheady Bridge, townland of Corureen, parish of Kildallen, county Cavan, and—Presented by the Board of Works.

In 1781, six circular brass plates, with curved stems, were dug up in Slane Park, county Meath, one of which (or properly two joined together) was figured by Vallancey, in his Collectanea de Rebus Hibernicis, vol. iv., p. 44, pl. vii., fig. I, as a musical instrument, under the name of a Crotal, or cymbal: small wire helices encircled its stem. It is still in the Museum of Trinity College, and measures 123 inches long; but the centre piece is not part of the original, and one of the joinings, neither of which is shown in that engraving, is undoubtedly modern. See Dr. Ball's paper in the Proceedings, vol. iii., p. 136. Subsequent investigation has shown that these were not musical instruments, and are not capable of emitting any sound, except that of an ordinary piece of metal when struck by any hard substance. They appear to have been latchet-fasteners, the curved stem passing through oiletholes in the garment, and may, from their shape, be styled Spectacle-Brooches.

There are four such articles in the Academy, arranged on Tray zz, Nos. 490 to 493, on one of which the helix for fastening it to the cloak still remains. Three are decorated upon the external surface, and vary in length from 31 to 51 inches, and from 11 to 21 in diameter of disk. The largest, here figured one-

> half the true size, is highly decorated both on the disk and stem. of which has a cenement, and is flatwards the point,

Fig. 471. No.492.

where it is highly finished, thus proving, with others si-

milarly formed, that such was its original termination. The cast decoration is of especial Irish character; that on the boss and and central enlargement partaking of the cornuted device, and also the bird-like pattern seen in Fig. 455, p. 559, while that at the extremity of the stem resembles the bone ornaments figured at page 346.

Spring-Brooches.—All the foregoing articles may fairly be considered of native design and manufacture. Some of those, however, now about to be described, and which have been very rarely found in Ireland, present characters that resemble classic fibulæ more than any other articles of personal decoration in the Collection of the Academy. The four follow-

ing cuts are drawn the true size from brooches, of which Fig. 472, No. 472, on Tray **EZ**, presents more of the classic type than any of the others;

Fig. 472. No. 472.

but at the same time the ornamentation resembles the Celtic trumpet-pattern already alluded to at page 519.

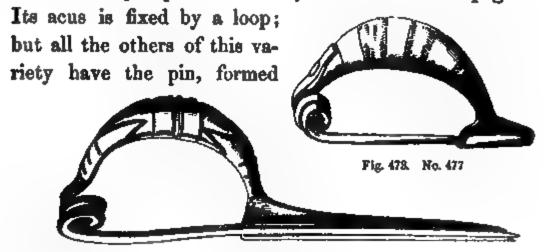


Fig. 474. No. 478.

by a spire of two or more coils, attached to one end of the article; and passing along the back, it is looped in a catch behind. Figures 473 and 474, drawn from Nos. 477 and 478,—deposited by the Royal Dublin Society,—may be styled spring-brooches of the Dolphin pattern, in each of which the pin, having made two turns, by what is termed a "rat-trap spring," hitches into the curved fish-tail of the article. In the first, the spring has been riveted to the body of the brooch; but in the second, both brooch and pin are of one piece. The circumstances under which the three foregoing articles were discovered, are unknown. In Rhodius's rare old work, "De Acia Dissertatio," 1672, there are figures of several such fibulæ.

On Tray ZZ may be seen three fibulæ, resembling coiled snakes, and which may therefore be denominated spring-

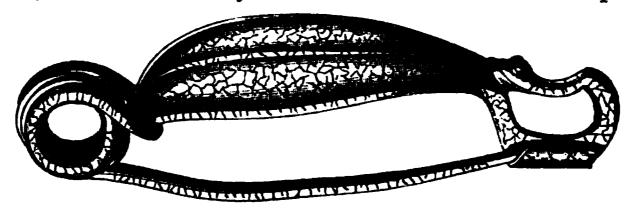


Fig. 475. No. 475.

brooches of the Serpent pattern, the largest of which, No. 475, is represented the size of the original by the accompanying illus-In these, the body of the snake is flattened out—into that form which several of the cobra species assume when irritated, and standing partially erect—while the tail portion is coiled several times on itself, and fastens in a catch formed in This very beautiful specimen, which is in the highest state of preservation, and was deposited by the Royal Dublin Society, is curiously frosted with a raised irregular pattern all over the surface; but whether produced in casting, or caused by sudden cooling of the metal, is uncertain. 473, which is almost identical in shape, is said to have been found at Navan Rath, county Armagh, and was procured along with the Dawson Collection. Of all the bronze articles connected with personal decoration in the Academy's Collection, there are few can equal in design and workmanship the hinge-brooch, figured on the opposite page, the natural size, and which was found in the Ardakillen crannoge, near Strokestown, county Roscommon. The decoration on the enlarged ends partakes of the Celtic trumpet-pattern, a miniature facsimile of those curious bosses of thin sheet brass on Tray vvv already referred to, and like them hammered or punched up from behind; while the central connecting curved strap, decorated with a raised intertwinement, like that seen on some of our sculptured crosses, and in the illumination of ancient manuscripts, would appear to have been cast. The exceedingly thin ornamented plate in front is fastened by eight rivets

## Fig. 476. No. 476.

to a stout flat plate, behind, which also overlaps the edges of the strap. The flat pin is hinged behind.\*

The total number of bronze pins and brooches now in the Museum, including those on "Find" Trays, is 600.

Armille, Buckles, Clasps, Buttons, Chains, Breast Ornaments, and Armour Decorations, &c.—While the Scandinavian and German museums of fatherland antiquities abound in antique bronze diadems, collars, neck and arm rings, and also greaves, and leg decorations, &c., similar articles of that metal are very rare, some even unknown, in this country—such personal ornaments having been formed of gold and silver, but especially of the former, by the early Irish. To Tray AAA, in the Western Gallery, have been affixed a miscellaneous collection of such bronze articles of this nature as have come into the possession of the Academy, and from which the following illustrations have been made.

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<sup>\*</sup> The late J. M. Kemble considered this brooch of great antiquity, and the finest specimen of bronze workmanship in the Collection. He made a very careful drawing of it, a few days before his fatal illness.

The torque pattern was employed by our ancient jewellers in the construction of small bronze rings, and also of bracelets and armlets; there are four such specimens in the collection, of which that represented, one-half the true size, by Fig. 477, from No. 506, is a good example. It is composed of two torque rings, meeting in a decoration in front, with a central

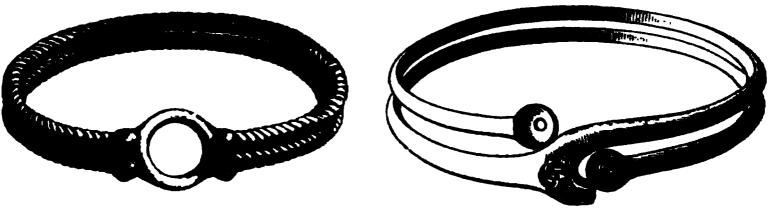
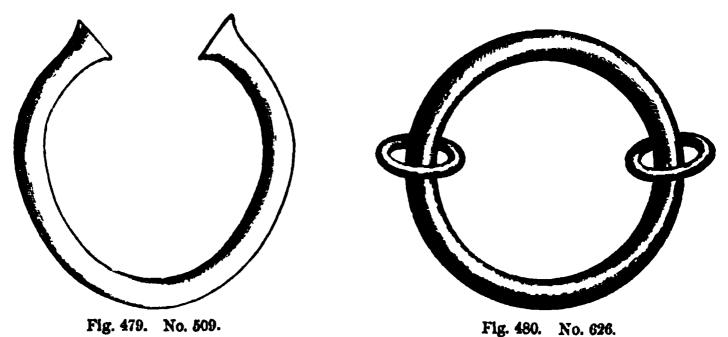


Fig. 477. No. 506.

Fig. 478. No. 504.

aperture, and four elevated studs; it is the most massive article of the kind in the collection. Figure 478 illustrates (one-half the size of the original) No. 504, somewhat wider and more slender than the foregoing; composed of a double circlet of thin bronze, with free ends, one of which is perforated for looping on a stud placed behind the central enlargement; the other extremity, as well as the central space, is decorated with an embossed bird-head pattern. It was found at the junction of the Deel and Boyne rivers, in the county Meath, and—Presented by the Board of Works.

Figure 479 drawn, one-half the true size, from No. 509;



is a penannular ring of pure red copper, and apparently of great antiquity; with slightly cupped enlargements at the

ends, like several of the gold armillæ found in Ireland. is totally undecorated, and was—Presented by A. W. Baker, Esq. No. 511, on the same tray, is similar both in shape and material, but the copper is not so pure; it is also smaller, and not cupped at the extremities. Articles of this kind have been regarded by some persons as ring-money; but no reference to any such mode of barter has yet been discovered in the very ancient records of Ireland; whereas bangles, identical in form, are still worn, both on the wrists and ankles, by the inhabitants of other countries. Of this variety—which was probably worn on the ankle, like those still in use among the Hindoos and some African tribes—is Fig. 480, from No. 626, on Tray FFF, 41 inches in diameter, with two small rings attached to it, each 1 wide, which may have been used for suspending the anklet by. It was cast or hammered in two pieces, which are joined on the flat. [For finger-rings, see page 598.]

Besides the foregoing, the uses of which are unquestioned, there are a great number of large massive bronze rings in the Collection, two of which are placed on Tray AAA, and six on Tray CCC; these were probably worn on the limbs, several are solid; some of them may have been the handles of cauldrons, like those described at page 530; but a great many are hollow, and filled either with lead, or some composition, like that used in the construction of Danish sword-handles, already referred to at page 550. Several of these large rings have smaller ones attached to them, like Fig. 480, and some articles of the same description in gold.

The three following cuts represent other antique articles connected with personal decoration. Fig. 481 shows the true size, a curious and not inelegantly formed piece of bronze chain, No. 518; to one end of which a pendant is attached, but not of the same style of workmanship, and apparently of less antiquity. Fig. 482 represents, the true size, a highly decorated and enamelled button, No. 623, in Rail-case P. The enamel paste,—nearly deficient,—which was red and green,

filled up all the spaces not occupied by the raised bronze lines. The loop behind is very thin and small, so that it is probable this article was sown upon a garment more as a decoration than a fastener. Fig. 483 represents, the natural size, one of the most beautiful specimens of inlaying bronze with silver, and some dark metal (after the fashion of the ancient niello), which has as yet been discovered in Ireland. It is a pendant hook, No. 520,



Fig. 491 No. 518.

Fig. 462. No. 628.

Fig. 483. No. 520.

on Tray AAA, and may have been used for suspending a sword by. The scroll-work is of a purely Irish character. It was procured, many years ago, from Mr. Wakeman. There are a few other articles of this description in the Collection, in No. 521 of which the large decorated boss is covered with green enamel; but it is comparatively modern, and far inferior in style of workmanship to that here represented.

In the centre of the fifth row on Tray AAA, may be seen seven articles of different shapes, consisting of studs, plates, and busses, highly decorated with the most elaborate patterns, each article differing in shape and ornamentation, but all originally covered on their external faces with a thick coating of gold. From the effects of time, and possibly some rude treatment, the gilding has been worn off the sharp raised edges of the pattern, but large quantities of it still remain

throughout the indentations of all; and, when examined with a powerful lens, it is manifest that the plating, or washing, with the precious metal, must have been of considerable thickness. Verdigris has exuded from the exposed red bronze in many places, and filled up the sunken portions of the decoration, but the patterns can be easily made out in all. In length they vary from 15 to 2 inches, and are about one-eighth inch thick at the outer margin. Posteriorly, they are flat and rough; and have two or more loops, according to their size, for attaching them to the garment on which they were placed,—possibly a buff-coat.

The casting is as fine as that seen in any of the brooches either of bronze or silver; and the style of ornament, although varied in each specimen, has a general resemblance to that on those decorated bones, already figured and described from pages 345 to 347. For a long time these articles were not considered of much value, and regarded as horse trappings,—the beauty of their decoration, and the circumstance of their gold plating, now established by analysis, not having attracted much attention. They were discovered, with several other articles, described hereafter, under the following circumstances, for an account of which the author is indebted to Mr. Wakeman, by whose zeal these valuable relics of the past were procured for the Academy. In July, 1848, the workmen engaged upon the railway, near the Navan station, adjoining the River Boyne, discovered a quantity of human remains, and also the skull of a horse, together with a number of antiquities, consisting of a bronze bridle-bit, and harness plate: some links of a chain and a massive boss evidently for the attachment of a chariot trace; iron rings plated with bronze, some small bronze buttons, and the seven richly gilt articles here referred to; all of which are now in the Museum of the Academy, and four of which have been engraved. In the place where these remains were discovered, the soil was much darker than the adjacent ground. The human bodies do not appear

to have been placed in any order; and in the surrounding earth was found a great quantity of charcoal, extending from 2 to 10 feet below the surface. A small portion only of the grave, or battle-pit (if such it were), was traversed by the rail-way cutting, so that much of the ground of this very remarkable interment remains as yet unexplored.

By the three following unreduced illustrations are presented typical specimens of the decorations alluded to, the details of all which are given at page 592. Three of the seven articles are more or less cruciform in shape, and have small loops behind for attaching them to the dress; only two are duplicates; and, with these exceptions, all the others, although in pairs, are totally distinct in ornamentation. No. 562, Fig. 484, cast from the same mould as No. 560, has been cleaned by a jeweller, in order to disclose the true nature of the me-

tal, and the extent of the gilding. It is almost as red as pure copper, and the greater part of the fine yellow gold wash or plating remains on the central boss. It has four loops on the reverse side for attaching it to the buffcoat, or other garment, to which it must have formed a very beautiful

Fig. 484. No. 562.

decoration. No. 559, Fig. 485, which remains in the state in which it was found—is, like the majority of these plates, slightly curved, as if to adapt it to the rotundity of the person, and has a different style of ornament in the head from that shown in Fig. 484. It has three loops posteriorly. Its fellow, No. 563, had originally a stone in the central boss, the setting only of which remains; it resembles this in shape, but

differs in the ornate details. Fig. 486 is drawn from No. 561, and would appear to have been the contral decoration. Its stile of ornament differs from both the foregoing in the circular pattern which pervades it, and which resembles the trumpet-

Fig. 485. No. 559

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Fig. 486. No. 561.

shaped figure already referred to at pages 519 and 566. It has four loops posteriorly. It is to be regretted that the limits of this work do not admit of having all these plates engraved. It may be asserted that they were horse-trappings or harness decorations; but the brooch-like and highly cast ornament, and the gilding, &c., have led us, in lack of any positive evidence, to a contrary opinion.

The ancient Irish warrior, standing behind the Ara, in his two-horse chariot; armed with a heavy battle-axe and long glittering spear; provided with several darts, or lances, for casting at the foe; and having by his side a leaf-shaped, brilliant, gold-adorned sword,—was, in all probability, furnished with more defensive armour than a small, round, brazen-centred shield: but no remnant of either helmet, greave, or leg-plate, has yet been recovered, wherewith the antiquary could present such a chieftain to the modern historian, arrayed in the panoply of the day in which he lived. That coats of mail were in general use here is evident from their frequent mention in

our early histories; but they were probably of iron, and will be taken into consideration in the description of articles of that material. There is, however, in the Royal Irish Academy a very extensive collection of bronze rings of different sizes, which, although believed, some years ago, to have been used as means of barter, and described as "ring money," there can now be little doubt formed portions of costume. Upon Tray man, in the second compartment on the north side of the ground-floor, is displayed the remains of a suit of bronze ring-mail, which probably served, when worn over or attached to a buff-coat, the double purpose of defence

and decorative costume; and was, in all likelihood, a portion of the paraphernalia of office in days gone by. It was discovered, about twenty years ago, three feet under the surface, in burning a reclaimed bog, adjoining the old castle of the O'Conors, near the town of Ros-"Owing to the peaty nature of the soil," observes Dr. Heily, through whose means this valuable relic was preserved, "the fire burned down into a pit, from which this armour was thrown up. I had the place most carefully searched, but no trace of human or other bones could be found." This figure represents the article as it was found (and as it is now placed on the tray), consisting of two broad chains, each composed of five strands of rings, with five links in each, except the upper

Fig. 487, No. 1.

and inner strands, which have but four links,—joined at their centres to curved shoulder-plates, and united in front and rere to large, hollow, ornamented, wheel-shaped bosses, from which proceed portions of other chains, the terminations of which are as yet unknown. These chains are chiefly made up of triple rings, cast in single pieces; and are united to each other, and to the shoulder-plates and bosses, by narrow looped slips of bronze. The two inside strands, both above and below, have each a link of only two rings, evidently for the purpose of shortening the chain towards the neck. As placed on the tray, and represented in the drawing, it measures 15% inches

in the clear between the bosses, each of which is 4 in diameter, and provided with seven loops above and below for the attachment of the two sets of chains, as shown in the annexed illustration, drawn one-third the true size. From the lower edge of each boss depend seven fragments of chain, the longest of which is 9 inches. They are chiefly composed of triple links, but contain some specimens of four rings joined together.

Fig. 488, No. 1.

The following figure illustrates a link of the chain, which is about 1½ inch long, and ½ wide. The shoulder-plates, each 4½ inches long, and 3½ broad, are cast in single pieces, and decorated on the external surface as well as perforated in the same style of art as that displayed in the chain.

With these articles—which were found united—were discovered a number of detached pieces, which, no doubt, formed portions of the same, or a similar personal decoration, consisting of fragments of chain of a larger size than that figured above; and bosses of various shapes, some of the most characteristic specimens of which are represented on page 578, which, with others found elsewhere, are placed in the same tray as No. 1. Some of these chains were cast with five links to-

gether (see No. 20) and many of the larger ones with but two, as shown in the accompanying figure, from No. 15, each ring of which is thin,

flat, and 11 inch wide.

The remaining rings and bosses are of three kinds—large hollow rings, encircled with loops on their external



Fig. 400, No. 15.

margins, and small trumpet-mouths, also having central inserted bosses, through which circular bronze rods pass for connecting them with other rings, and which also served to fix them in their places. There are two such articles on Tray BBB, Nos. 2 and 3,

Fig. 491, No. 3.

Fig. 492, No. 4.

both slightly defective; and from the latter of which, Fig. 492 has been drawn, one-third the size of the original. No. 4, also reduced two-thirds, and represented by Fig. 493, is of a different pattern from any of the foregoing, and composed of a hollow ring, surrounded by a number of circular chain loops, and the centre filled by a moveable boss, with a conical projection, traversed by a pin, which fixes it within the external ring.\* By Figure 493 is shown, one-half the true size, a centre-piece, similar to that in the foregoing, found in the Co. Tipperary. On one edge may be seen the aperture through

\* This is the identical article, formerly in Dean Dawson's collection, which Sir William Betham figured in the Transactions of the Academy, vol. xvil., and described as "a Celtic Astronomical instrument, invented to exhibit to the pupil a diagram of the Earth's polar inclination, and the phenomena of the phases of the Moon"!

which the traversing pin passed. The third article of this

variety, and that most frequently discovered, is a ring, generally hollow, mostly approaching an oval, and having a trumpet-mouthed aperture on each side, more or less wide, elevated and de-



Pig. 482, No. 5.

Fig. 494, No. 93,

corated in the different specimens, which vary in size from 1½ to 3½ inches in their greatest length. No. 93, Fig. 494, is a characteristic specimen of this article. They were traversed by double-looped straps of bronze, which connected them on each side with ring chains, which remain in situ in several specimens: see Nos. 7 and 8. There are altogether twenty-three rings of this description in the Collection, viz: Nos. 555 and 556, on Tray AAA; Nos. 6 to 11 on Tray BBB; and Nos. 80 to 94 on Tray CCC. Vallancey, who figured one of these in 1784, under the name of Iogh Draoach, or "Druids' chains of knowledge, or chains of Divination," says, "they are found in our bogs in great plenty."

On Trays CCC to FFF have been arranged a collection of five hundred and seventy-eight bronze rings, mostly single, but some double, and a few interlooped, and varying in size from that of an ordinary finger-ring to specimens 4½ inches in diameter. On the upper portion of Tray CCC have been arranged twenty-five rings, varying in diameter from somewhat less than an inch to about 4 inches; the smaller are solid, but the larger hollow, perfectly plain, and perforated on each side for the passage of a loop for connecting them to chains or other bosses. They have no lips or trumpet margins to their lateral apertures; but from a careful examination of the chain dress on Tray BBB, no doubt can longer exist as to their use. Some of these measure 1% of an inch in the thickness of ring.

Detached rings, bosses, and portions of ring-chain, identi-

cal with those just described, having been frequently found in Ireland, attracted the attention of the speculative and fanciful antiquaries of the last century; and like other articles, the direct uses or object of which is either undetermined or misunderstood, have been usually attributed to Druidism, and had mystical meanings assigned to them, on which the most absurd theories were founded; and on the names assigned to them by theorists, discursive philological dissertations were written. Thus, Vallancey figured five of these links of chain-armour in his Collectanea (vol. iv., pl. xiv., pp. 73 to 106), and described them as amulets, divining-rings, talismans, ringmoney, and Teraphims, &c., under the names of Fainidh-Draoieach, Tair-Faimh, Boil-Reann, Soilfeach, Iogh Eolas, and Ainic Druieach, &c. &c.

The chain-loops to some of these rings, he says, "represented the Sun, Moon, and Earth, and the large ring in the centre was the Earth." Other persons, he states, thought "that they represent the Sun, Venus, and Mercury;" but, he adds, "all agree that some of the planets were understood to be thus represented."\* The author of the foregoing was, like other speculators, not quite clear as to the Jewish, Phœnician, or Chaldaic origin of these articles; but he was certain that "the Irish Druids never walked abroad without the ring and staff"—page 83:—although we really know nothing of Irish Druidism, except the bare fact of Patrick and the early Christian missionaries having come in contact with its priests on their arrival, in the fifth century. The ecclesiastical chroniclers of the period, in their zeal for the establishment of Christianity, would appear to have altogether ignored the subject of Pagan worship: and of the Druidism of Gaul and Britain we know little beyond what may be gleaned from the writings of Cæsar.

<sup>\*</sup> See Collectanca, vol. iv., p. 81. Sir. W. Betham evidently took his notion of the astronomical instrument, alluded to in the note at page 578, from the foregoing fancy of Vallancey.

With one of the gold penannular ornaments recently acquired by the Academy, from the county Sligo, was discovered a quantity of small ring-chains of a peculiar make: see No. 647, page 599. For Finger-rings, see Rail-case P, page 598. The only other articles of note, appertaining to dress or personal decoration, in the Collection, is a series of large buckles, on Tray GGG; but they are of very modern date.

The following is a detailed catalogue of all the bronze or brass articles belonging to dress or personal decoration in the Collection:—

## Bronze, II .- Western Gallery, Central Compartment.

SHELF I., Tray XX, contains two hundred and forty-four bronze pins, cloak and hair fasteners, of various shapes and sizes; numbered from 1 to 244. They are arranged in four rows, not merely for the purpose of artistic display, but with a certain regard to the forms of each sub-variety. The first row contains 83 simple pins, varying in length from 2 to 5 inches. Their shanks are generally circular, and in most instances smooth and plain; but in Nos. 16, 17, 18, 35, 77, and 83, they are slightly decorated, either by transverse, oblique, spiral, or chequered depressions or elevations. In most specimens the heads are globular, and perfectly plain; but in those numbered from 38 to 83 they are flattened, and either circular or triangular, with graven or cast decorations on the flat surface. In Nos. 68, 69, 70, and 75, they are cubical, with the angles re-It is manifest that the heads were attached in Nos. 21 and 22. Nos. 45, 62, 63, 66, and 69, have been figured as illustrative of the form of head in simple pins, on p. 556. Nos. 1 and 69, were found in the crannoges of Clonfree and Ardakillen, county Roscommon; and No. 14 in the island in Roughan Lake (see page 223).

In the second row the pin-heads are more developed and decorated, and in the central specimens the shanks are of great length; they were probably hair-pins. This row contains eighty-three specimens, numbered from 84 to 166, which vary in length from 12 to 13½ inches. The first forty are of the same variety as those in the

top row, but exhibit greater diversity in ornamentation of both head and shank. No. 79 was found at Ardakillen. No. 124, figured with 113 and 114, at p. 556, presents the first instance of a division between the decorated upper portion of the shank and its plain extremity, and of which Nos. 126, 131, 133, 135, and 136, are good examples. In these, a portion (about the upper-third) is enlarged and decorated, either in casting or with the file or chisel. Nos. 125 and 126 have remarkable sword-pommel-shaped heads, the latter is figured and described at p. 559; and in No. 131 the scroll is turned downwards and outwards. The three central pins, Nos. 127, 128, and 129, are the longest specimens in the Collection, and have circular disks at top; the two last are decorated; the first and second are figured and described at p. 557. No. 132 is a unique specimen, cupped at top, probably for holding a jewel, and has a loop attached to the stem. No. 136 has a remarkable open-work head and a central square elevation on the stem; it was found at Clonmacnoise. The heads of all the remaining pins in this row decrease in size to the end, and have been decorated by the file. No. 137 has a hollow on top of solid head. In No. 138 there are projections on the top and sides of the head. No. 139 was found, with several others, in a quarry near Donnybrook. Nos. 140 and 143 were found at Headford, county of Galway. No. 148 was found at Ardakillen crannoge.

The third row contains forty specimens, numbered from 167 to 206, which show still more the development of the head than any of the foregoing. No. 170 is figured at p. 555. No. 174 was found at Ardakillen, and 177 at Roughan Island. Nos. 183 to 187 have curved heads, formed into zoological designs, of which No. 184, figured on p. 555, is a typical specimen. No. 188 has a large recurved head, like No. 131, and a square elevation on the shank. In No. 189 this peculiar form is still further developed. The ten specimens numbered from 192 to 201 present a peculiarly Irish form of fibula decoration, the type of which, from No. 195, is figured and described at p. 559. No. 192 was procured from Gweedore. In Nos. 200 and 201, the tops of these hammer-headed pins are circular. In No. 194 the white enamel still remains. In No. 197 the bronze decoration on the flat of the head is raised above the level of the enamelled surface. Nos. 200 and 201 have small circular heads, like some of the

silver pins. No. 203, a good specimen, in fine preservation, with a lozenge-shaped head; is  $4\frac{3}{4}$  long. It was found at New Grange. The last three specimens on this row commence another description of decorated head, of which there are fifteen examples in the Collection, ending with No. 218 in the bottom row, and of which 207 and 216, figured and described on pp. 557 and 558 are typical examples. In these the shield-like boss is attached to the bent portion of the pin, and has a large conical projection in the middle; in length of stem they vary from  $2\frac{1}{8}$  to  $8\frac{1}{2}$ , and in diameter of boss from  $\frac{3}{4}$  to about  $2\frac{1}{4}$ ; the central projection rises from  $\frac{1}{8}$  to about an inch above the surface. The external surfaces of these bosses are, in most instances, highly decorated; see, especially, No. 206, where it is formed by a series of minute concentric circles; that pin was found at Croghtenclogh, parish of Castlecomer, county Kilkenny.

In the bottom row, consisting of thirty-eight specimens, numbered from 207 to 244, the first twelve belong to the variety just described. No. 214 has been cleaned, to show the reddish copper colour of the metal before it was tarnished by time. All the remaining pins on this tray, except No. 219, present the same form of semi-circular head, which in No. 228, and all after, becomes a loop. No. 215 was found at Loughran's Island, on the Lower Bann. No. 216 was procured from Keelogue Ford. Nos. 223 and 244 were found in Ardakillen, and No. 235 in Cloonfinlough crannoges. No. 237 was procured from Lough Gurr, county Limerick.

Of the foregoing, No 1 was—Presented by the Rev. Peter Browne; Nos. 20, 124, 136, 156, to 160; 209 and 216—by the Shannon Commissioners; Nos. 69, 79, 148, 173, 233, 235, and 244—by the Board of Works; No. 88—by Executors of Leslie Ogilby, Esq.; No. 203—by R. Maguire, Esq.; No. 130—by R. A. Grey, C. E.; Nos. 140 and 143—by R. J.M. St. George, Esq.; Nos. 131, 133, 213, and 236, were procured with the Dawson Collection.

SHELF II., Tray WY, contains one hundred and twenty-seven pins and brooches, all supplied with rings, and showing the process of development in that portion of the article; most of them are highly decorated, and numbered from 245 to 371. The top row contains forty-three pins, varying in length from  $2\frac{5}{8}$  to 10 inches, and in diameter of ring from  $\frac{1}{2}$  to  $1\frac{1}{8}$  of an inch. Most of the stems are circular and plain; but in Nos. 255, 256, 259, 260, 264, 266, 269, 270,

271, 272, 277, 279, 280, and 284, they are flattened towards the points, and also decorated,—some of them with the most minute and elegant ornamentation, apparently produced in the casting. At the commencement of the row the heads are large, and decorated,—up to the long central pin, No. 268; after which, that part decreases in size until it becomes a mere loop, or turn-over, for retaining the enlarged ring. In the first specimens, the ring narrows in substance where it passes through the pin, so as to form a swivel; but in others, towards the end of the row, as in Nos. 277 and 285, it passes through without any diminution in size. With the exception of the first, all the other rings are plain. Nos. 268 and 278 were found in Cloonfinlough crannoge, described at p. 226. No. 286, originally plated, was found in a bog, close to an ancient ford, near Anadruse bridge on the River Deel, townland of Derrymore, parish of Killucan, barony of Farbill, and county Westmeath.

The second row contains forty-three specimens, in which the rings are more developed than in the foregoing. The first six resemble those in the top row, with the exception of No. 293, which has a large burr on the side of the ring-hole. In all the other specimens the ring is either double, split, or more or less decorated. No. 294 may be seen the rudiments of those enlargements subsequently observed upon the penannular brooches. In No. 295 to 299 there is a loop at the end of the lower margin of the ring, probably for attaching a pendant to. No. 297 has been figured and described at p. 561, to illustrate this variety. It has a long flat acus; the outer margin of the ring is decorated with quatrefoil In Nos. 295, 296, and 300, may be seen the settings for decorative stones, possibly amber. In No. 298, the pendant loop is in the form of a bird's head. In the four following specimens, Nos. 301 to 304, the ring assumes the form of a flattened disk, like a coin, of which No. 302, figured and described at p. 562, is a typical example. In the four next specimens, from Nos. 305 to 308, the heads are specially developed, and the rings become again the minor part; a good exemplification of which may be seen in No. 305, figured at p. 560. It and the following have large circular heads, with small wire-like loops passed through the necks. Nos. 307 and 308, the latter of which is figured and described at p. 560, resemble in the form of their flat heads the ancient stylus, the upper portion of

which was used for smoothing the wax on the tablet, before writing with the point. They have each large twisted rings passed through holes in the neck. The remaining numbers on this row vary in length from  $2\frac{1}{8}$  to  $6\frac{3}{4}$  inches. Sixteen have either double or split rings—like key-rings—passed through the aperture. The six last are small pins, with highly decorated penannular rings. No. 296 was found at Ballinderry; and No. 306, in the old channel of the River Brusna, opposite the ruins of Gallen Abbey, King's County. No. 317 was found in the bed of the Yellow River, near Ballyduff Bridge, parish of Oughteragh, county Leitrim. No. 321, in Gillstown River, townland of Clooneen-Hartland, barony of Ballintubber North, county Roscommon. No. 324 was procured from Gweedore; and No. 330, from Oldcastle, near Mullingar.

The third row contains twenty-six ring-pins, exhibiting a still greater advance in the process of development of the ring, which in most instances is flattened out, and in some jewelled. They are generally plain in the shank, with simple looped heads; but in a few instances, as Nos. 346, 349, and 355, &c., the loop, or ring, is deco-In length they vary from  $2\frac{3}{4}$  to  $6\frac{1}{4}$  inches. The majority are penannular, and vary in diameter from 1 to 2 inches. Without entering into most minute and voluminous details, or affording a very large number of illustrations, it would not be possible to present the reader with a full description of the character of ornamentation observable on these rings, no two of which are alike. In No. 337, the ring, although apparently cleft, is joined below, a form not uncommon in many of the larger brooches of silver and white metal. In this, and, with few exceptions, all the other specimens on the third row, the lower margin of the ring is enlarged, flattened, and decorated; and in No. 339 was also jewelled. In several specimens, viz. Nos. 338, 339, 340, 342, 343, 344, and 346, the ring is flat, decorated all round the hoop, and passes through the loop in the pin-head by a slender portion, with a raised shoulder on each side. No. 343 has a very perfect and highly decorated ring, ornamented in the style of the bone carvings exhibited by Figs. 229 to 231, on p. 346; the three amber studs still remain; it is one of the most perfect articles in the Collection. No. 344, figured and described at p. 565, has three of the four original amber studs remaining. 346 has the acus highly developed at top, and is also figured and

described at p. 565. In Nos. 347, 349, 350, 353, and 356, the upper portion of the circular ring is decorated with a number of transverse and spiral indentations. In No. 350, a portion of the enamel still remains on the face; as also in No. 352, where it is of a white and red colour. See Proceedings, vol. vi., p. 250. No. 334 was found at Loughran's Island, on the Bann; No. 336, in the bed of the Shannon, at Athlone; and 343 at Dunshaughlin.

The fourth row consists of fifteen brooches, in which the ring reaches the maximum of size observed in bronze articles of this description; while the pins are proportionably shortened, and with few exceptions are all decorated on the loops, which are flattened out, some to the extent of  $\frac{3}{4}$  of an inch. In length they vary from  $3\frac{1}{4}$ to 7\frac{3}{4}. In No. 361, a ring-brooch, with a connecting bar between the ends of the penannular ring, we first observe that large triangular development of the head of the acus on which the jeweller subsequently displayed much taste and ingenuity, as may be seen in the large brooches of silver and white metal. Most of these developed heads are brazed so accurately to the posterior loops, that the joinings are imperceptible. The rings vary in diameter from  $2\frac{1}{8}$ to 4\frac{3}{4} inches; and, with the exception of Nos. 357 and 361, they are all penannular. No. 359 has the large extremities of the ring hollowed out for enamel, showing the roughened beds on which that substance was placed. No. 364 presents the same peculiarity. Most of these rings are circular above the lower development, and decorated with transverse lines, like those in the previous row. of them are plain upon the reverse; but others are decorated, either in casting, or by engraved or punched lines; and Nos. 364 and 368 have deep hollows on the obverse, opposite the lower enlarged and decorated portions. In No. 369, in which the pin is wanting, the ring is joined below by a cross-bar, and has six jewel-settings. article on this row, No. 371, figured and described at p. 564, is the largest bronze brooch in the Collection. No. 357, much corroded, was found a short way under the surface on the Antrim bank of the Portna rapids, on the Lower Bann. Nos. 365 and 366 were found one foot under the surface of the land, in the townland of Droughtville, barony of Ballybritt, King's County; and 370, in the Shannon, at Cornacarrow, county Leitrim.

Of the foregoing, Nos. 251, 293, and 318, were—Presented by

Lord Farnham; 254 and 301—by R. A. Gray, C. E.; 268—by A. Lawder, Esq.; 323—by Dr. O'Meara; 352—by Rev. C. Graves, D. D.; Nos. 209, 216, 244, 266, 292, 327, 336, 361, 363, 370, and 371, were—Presented by the Shannon Commissioners; and 306, 317, 321, 334, 346, 357, 365, and 366—by the Board of Works. Nos. 307, 308, 335, 354, and 360, were procured with the Dawson Collection.

Tray ZZ contains one hundred and twenty-eight bronze pins, brooches, latchet-fasteners, and other articles of that description, numbered from 372 to 499. The top row contains 43 simple pins, varying in length from  $2\frac{1}{3}$  to  $6\frac{3}{4}$  inches. Several of them are very slender; see, in particular, 379 and 396, which are not grosser than a large modern pin. The shanks of many are decorated with most elegant patterns, of which No. 399, figured on p. 555, is a good illustration; see also No. 400, which possesses the same style of scroll In No. 408 the shaft is plated, and in No. 383 it is inlaid work. with silver; but the decoration is so minute in several as to require a lens for the discovery of its beauty. In No. 401, which is 5 inches long, and slightly decorated all over the shank, there is an eye near the point like that of a packing-needle; it is the only specimen of the kind in the Collection. In several, the lower third of the shaft is four-sided; see Nos. 382, 384, 385, and from 391 to 394. The heads are chiefly circular, and carved like the rimer used for counter-sinking screw-holes. The first, No. 372, has a large nuggethead, and is evidently unfinished. A few towards the end of the row are looped for the passage of rings.

The second row contains thirty-four pins, most of which are supplied with rings; this series shows the first advance in that form of decoration. In length they vary from  $2\frac{1}{8}$  to  $5\frac{1}{4}$  inches, and are numbered from 415 to 448. The four first are plain, with decorated heads. No. 419 is a most remarkable pin,  $5\frac{1}{4}$  inches long, with a double ring passed through a square decorated collar, from which spring upwards several loops that support a cup-like head, which possibly held a stone, and which is detached from the shaft; on these loops, as well as on the necks, are strung several small rings. No. 420, a small pin with three rings, figured and described at p. 560. No. 421, a very elegant pin, in fine preservation, with wreath-shaped loop. No. 422, said to be from Ballinderry, is figured and described at p. 559. No. 423, ditto, imperfect in point,

circular head, enamelled. No. 424, plain, with large buckle-like quadrangular loop. No. 425, ditto, with flat circular loop. No. 426 has a horse-shoe-shaped ring rivetted across the square top. In No. 427, with two stone settings the ring is enlarged below; a cross-piece joins the ends. No. 428, ring penannular. No. 429, ring, decorated. No. 430, a flat highly decorated ring. No. 431, ditto, with six stone settings. No. 432 has one stone-setting. No. 433, a small plain pin, with large flat circular disk, like a coin, suspended from it. No. 434, ditto, smaller. No. 435, ditto, still smaller. No. 436, a rude plain flat pin of bright yellow metal, with hole in top; no ring or loop. No. 437, a small plain pin, with quadrangular buckle-like ring. No. 438, a long pin, with small broad ring. The remaining articles in this row show the development of the simple ring which in Nos. 439, 440, and 442, is attached to the stem by a cross rivet.

The third row contains eighteen articles, chiefly brooch rings, but with four exceptions having no pins. No. 449, a plain ring. No. 450, ditto, pennanular. No. 451, portion of double ring. No. 452, a double ring of two and a half coils. No. 453, ditto, larger. Nos. 454 to 457 are four small brooches, like some of those in the collection of silver articles, in which the pin does not project beyond the margin of the ring. In diameter they vary from # to 11 inch, and are all decorated; the ornament on 456 resembles that in some Scandinavian gold articles, and consists of a number of indentations sunk into the substance of the metal. No. 458 is a large flat ring, with a small narrow neck for passing through the loop of the pin, at which point the ends overlap for about \( \frac{1}{4} \) inch. It is 1\( \frac{3}{4} \) in diameter, and decorated with Ogham-like marks. No. 459, a small, plain, penannular ring. No. 460, a ring decorated below. No. 461, ditto, with cross bar. No. 462, penannular, decorated. No. 463, highly decorated on lower flat expansions. No. 464, ditto, decorated, twisted. No. 465, a ring with cross-bar, decorated. No. 466, a very remarkable ring; the loop for fastening it to the acus is placed behind, like that seen in some of the pins in large decorated silver brooches. The ring is rendered wheel-shape by a central cross, and has a pendant cross below its external margin. It has nine countersunk elevations, probably stone settings: see p. 564.

The fourth row contains four perfect brooches, numbered from 467 to 470. No. 467, a penannular ring brooch, with four red

enamel studs. No. 468, ditto, with large shallow enamel indentations in lower margin of ring; highly decorated head-loop to pin;  $4\frac{3}{4}$  long, and  $2\frac{1}{4}$  wide in ring. No. 469, a very beautiful and highly decorated bronze brooch gilt, loop attached to posterior side of decorated head, cross-bar to ring;  $4\frac{3}{4}$  by  $2\frac{3}{4}$ . No. 470, a penannular ringbrooch, with large decorated looped head to pin, like 468. Portions of red and yellow enamel paste still remain in ring. Two helices, or wire-spires, for attaching it to the dress are still in situ.

The fifth row consists of spring brooches, and the knobby rings of pins, like those figured at p. 563. No. 471, a spring brooch, wanting the pin, of classic, and what has been styled Helvetian form. No. 472, a triangular brooch, with trumpet ornament; figured and described at p. 567. No. 473, a spring-brooch of classic form, representing a serpent, with enlarged neck, forming the body of the article, while the tail coiled round several times, ends in the pin, which catches in a fastener formed below the head;  $2\frac{1}{2}$ . No. 474, ditto, longer and broader, with five-coiled spring; head of serpent very well cast; decorated down the centre, and along the outer edge; 3½. No. 475, the very beautiful specimen of the same variety, figured and described at p. 567. No. 476, the buckle-brooch, with trumpet pattern; figured and described at p. 569. The two next specimens, Nos. 477 and 478, are of a different variety, and both figured and described at p. 568. The remaining articles on this row consist of rings about the size of thumb-rings, with two or more knobs attached to the outer rims of each; and believed to have been attached to pins. The first, No. 479, is figured and described at p. 563. No. 480, ditto, with three knobs; central one defective. No. 481, ditto, three knobs in a cluster. No. 482, ditto. No. 483 like a finger-ring; lower portion gilt, with central red enamelled studs in each of the three knobs. No. 484 is figured at p. 563. No. 485, ditto, unsymmetrical.

The last row consists of a series of pins, and other articles connected with personal decoration. No. 486, the acus of a ring-brooch, with triangular gilt head;  $2\frac{1}{2}$ . No. 487, a remarkably long, slender pin; of unusual pattern;  $7\frac{1}{2}$ ; with a thin flat rim of white metal, two jewel-settings;  $1\frac{5}{8}$ . No. 488, the long acus of a large ring-brooch, with decorated head, and wide loop posteriorly; 7. No. 489 is figured and described at p. 558. The four next specimens

are spectacle-brooches. No. 490, figured below, measures  $4\frac{2}{3}$  in its greatest length; and has a small circular termination to decorated stem; disk plain;  $1\frac{7}{8}$ . No. 491, ditto;  $4\frac{3}{4}$ ; disk slightly decorated in centre, as if struck with a die;  $1\frac{7}{8}$  in diameter. No. 492, ditto,

highly decorated; figured and described at p. 566. No. 493, a small plain specimen of spectacle-brooch;  $3\frac{1}{4}$ ;

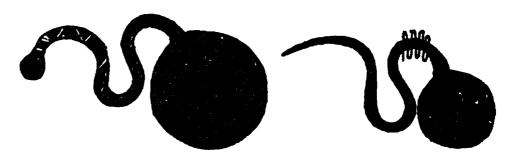


Fig. 495. No. 490.

Fig. 496. No 493.

disk, 1½, with a helix of six coils encircling the slender, sharp-pointed stem, as shown above. The three next specimens are curved pins, of a peculiar shape; of which, No. 495 is figured at p. 560. They differ but slightly either in character or ornament. The three last articles are slender pins, with cup-shaped heads, of which the central one, No. 498, has been figured and described at p. 558.

Of the foregoing, the first, No. 372, was found in Bride-street, Dublin, and described as No. 504 in Proceedings, vol. vii., p. 130. For Nos. 373 and 397, see Nos. 502 and 503, in Proceedings, vol. vii., p. 130. Nos. 375, 376, 378, 408, 409, and 432, were procured in the Ballinderry crannoge. Nos. 381 to 392, and Nos. 395, 396, 417, and 421, were obtained from Gweedore Strand, on the coast of Donegal, and—Presented by Lord George Hill. See Proceedings, vol. vii., pp. 41, 159. Nos. 374, 402, 442, 403, 404, 444, 446, 476 were procured from the Strokestown crannoges; 499, found at Loughran's Island, on the Bann, was—Presented by Board of Works. Nos. 377, 381, 413 and 418, procured from Arranmore, in Galway Bay, were —Presented by W.R. Wilde, Esq.; and Nos. 374, 419, 470, 487, 488, were—Deposited by Sir Benjamin Chapman; and Nos. 416, 443, 475, 477, and 478—by the Royal Dublin Society. Nos. 452, 463, 491, 493, 495, 496, were—Presented by the Shannon Commissioners; and No. 445, found in Upper Exchange-street—by Park Neville, C. E. See Proc, vol. vii., p. 162. No. 448, found in a fort in the townland of Drumgurragh, in Farney, county Monaghan, was—Presented by Rev. Mr. Thompson, April 26, 1853. No. 490 was found in Colonel Pallisser's demesne, county Kildare.

SHELF II., Tray AAA, contains a miscellaneous collection of one hundred and twenty-three articles, chiefly relating to personal deco-

ration, and numbered from 500 to 620. The top row is composed of rings,—either bracelets or armlets. No. 500, a thin bronze hoop, apparently a bracelet; 2½ inches in diameter, and about § wide. No. 501, ditto, broader and thinner, grooved, and decorated with minute cross-lines, has another enclosed;  $2\frac{1}{3}$  by  $\frac{3}{4}$  (Dawson). No. 502, ditto, a half-round in section, plain, ends over-lap;  $2\frac{1}{4}$  by  $\frac{3}{4}$ . No. 503, a very perfect armlet, with a central circular aperture; cast, grooved on both sides; ring complete;  $3\frac{1}{4}$  by  $\frac{1}{2}$ . No. 504, the large double bracelet, figured and described at p. 570. No. 505, a thin narrow torque armlet, with a central broad aperture, like No. 503; one end of the slender round twisted hoop is fastened in a rude socket, in the broad circular decoration. Possibly two other bands were originally affixed in the same fashion to the central decoration; it is 3½ in diameter. No. 506, the double torque armlet figured and described at p. 570. Nos. 507 and 508, two pieces of bronze torque, imperfect, probably portions of armlets. 509, a bright copper penannular armlet, figured and described at p. 570. No. 510, fragment of a similar article of bronze, but with a wider cup, and much resembling some of the gold ornaments in the Academy's Collection. No. 511, a penannular copper ring, resembling 509, but not of such red metal, and not cupped at the extremities;  $2\frac{3}{4}$  in greatest width. row.—No. 512, a thin flat ring, with separate and overlapping ends; decorated with cross indentations on external half-round surface; 2½; found in Dublin. No. 513, a perfect, beautifully cast ring, with central lozenge-shaped ornament, and highly decorated with very minute raised circles all round; 13 in diameter from out to out; it may have been a brooch-ring. No. 514, a small slender torquepattern ring; 14 in diameter; found in one of the Strokestown crannoges. The three next articles are chains, the two first of no great age. No. 515 consists of three portions,—a square watch chain; four simple loops; and a pendant termination; 12½ long. No. 516, a slight simple looped chain, 6 inches long. No. 517, ditto; 8 (Sirr). No. 518, a small curiously-constructed chain, with a pendant, figured at p. 572 (Sirr). No. 519, a hooked pendant, with portion of chain attached; 3½ (Sirr). No. 520, the beautiful pendant hook, inlaid with silver, figured and described at p. 572. No. 521, a hook pendant, with large decorated boss, rudely coated

with green enamel. The third row consists of eleven large shoe, belt, knee, and garment buckles, not of any great age, but most of them of patterns long since disused. In shape they are round, flat, quadrangular, and oval, and in size they vary from  $2\frac{1}{4}$  to  $4\frac{1}{4}$  inches. Nos. 522 and 523 were—Presented by Very Rev. Dean Butler; 524—by the Shannon Commissioners; 526 and 527—by R. A. Gray, C. E.; and 528—by Major John Brown. The fourth row consists of seventeen buckles, smaller and more antique than the foregoing, and also three swivel-loops, one of which is quite perfect. Many of the buckles present curious forms, and exhibit the fashion in this article at the respective periods to which they belong. No. 540 was found at Newtown-Trim, and was, with 544—Presented by the Very Rev. Dean Butler. See Proceedings, vol. vi., p. 171.

The fifth row consists of articles of undoubted antiquity. No. 553 is a large bronze ring, possibly an armlet;  $3\frac{3}{4}$  inches in diameter externally; much corroded on its internal surface, where the thin bronze coating having been removed, allows the central filling with lead to be seen. No. 554, ditto, perfect; 4 massive. On its lower and outer edge may be seen an aperture, covered by a bronze plate, through which, probably, lead was poured in; No. 555, a bronze ring, with side apertures, like those on Trays CCC, which are represented at p. 579; 2 in greatest diameter. No. 556, ditto, smaller;  $1\frac{3}{4}$ . Both these were—Deposited by the Royal Dublin Society. No. 557, a thick flat ring, of yellowish-red metal; silver plated;  $1\frac{3}{8}$ .

The seven following articles are the decorated and gilt plates referred to at p. 572; and found in the railway cutting at Navan. No. 558, a long plate, with curved head rising out of upper edge; slightly curved on the flat; the decoration is very sharp, and much of the gilding remains; 1\frac{1}{2}. No. 559, ditto, larger; figured and described at p. 575. No. 560, a cross-shaped ornament; identical with, and probably cast in the same mould as, No. 562; much coated with verdigris; a little of the gilt plating still remains on its central portion; it has four back-loops; 2\frac{1}{4}. No. 561, a large decorated boss, in good preservation, figured and described at p. 575, No. 562, identical with 560, is figured at p. 574. No. 563, another ornament, of a different pattern, consisting of a central boss, and three square arms, with an inferior semicircular enlargement; it is

highly and most minutely decorated, and has a central jewel setting; a considerable portion of the gilding still remains over the surface; the decoration on the lateral portion of this specimen resembles twisted animals, like those on the carved bones figured at page 346, whereas that employed on the upper member of the cross consists of a double spire, not unlike the Scandinavian style of ornament, but the centre of each spire is of the true Celtic character. The general features of the ornamentation in this specimen resemble those in No. 561; four loops; 25. No. 564, a small, oblong, four-cornered plate, like No. 558, but without upper enlargement; decoration very minute, and well plated with gold; two loops; 13 by 5. The remaining articles in this row, from No. 565 to 572, consist of simple bronze rings, most of them flat, varying in diameter from 1 to 11 inches.

The sixth row consists of rings, and small buckles. No. 573, a rude flat copper ring;  $1\frac{1}{3}$ . No. 574, a twisted bronze penannular ring, fastening by a catch, like a modern key-ring; 1\frac{1}{2}. No. 575, a penannular ring, very similar to some of the silver armlets; large, and four-sided in centre, becoming flattened towards the extremities, the outer edges of which are beautifully decorated with minute circles; it is one of the most elegantly formed articles in the bronze collection, and looks like a child's bracelet; found in the city of Dublin. No. 576, a plain ring; 1\frac{1}{4}. No. 577, ditto, flat twisted; 12. No. 578, ditto, with an aperture, as if for the insertion of a stone; possibly a finger-ring. No. 579, a bronze fingerring. Nos. 580 and 581, ditto, penannular. The remaining articles in this row consist of twenty-seven buckles, several of which are attached to bronze straps, and were probably used with spurs; some resemble hat-buckles; their history is unknown. Nos. 582 and 608 are large belt-buckles. No. 593 is decorated. The last row contains fourteen articles, of a miscellaneous character, numbered from 609 to 623. No. 609 is a large double swivel. No. 610, a scollop-shaped article, like a locket. No. 611, a lozenge-shaped, flat, decorated article; 12; with a loop at each angle, and a central stonesetting; possibly the pendant of a breast-pin. No. 612, a thin eggshaped disk, dished, with five holes; apparently a decoration.— Presented by the Shannon Commissioners. No. 614, ditto, with four No. 115, ditto, massive, with loop at upper edge;  $2\frac{3}{4}$ ; found with the foregoing, and other bronze antiquities, at Tullahogue, near Dungannon.—Presented by Rev. Dr. Porter. No. 616, a pendant, like a key-hole cover. No. 617, ditto, of graceful cage-work; possibly an earring. No. 618, an ornamental disk, resembling a badge; 1½. No. 619, ditto, rude, lozenge-shaped; 2½. No. 620, a decorated pendant hook, like No. 521. No. 621, a circular open-work stud; 1½. No. 622 ditto, imperfect; and 623, perfect.

Bronze, VI.—Ground Floor, Second Compartment.

SHELF I., Tray BBB, contains a series of articles connected with a suit of chain-armour, and numbered from 1 to 54. is a large neck and chest decoration, composed of chain-bosses and shoulder-plates, figured and described at p. 576. Nos. 2 and 3, large bosses, of light golden bronze, originally encircled with small loops, having central concave studs, and trumpet-mouthed apertures on each side. Both articles appear to be identical, and are slightly imperfect. No. 3 is figured and described at p. 578. For description of No. 4, placed in centre of tray, see Fig. 492, p. 578; and for No. 5, see Fig. 493, on page 579. Nos. 6, 7, 8, 9, 10, and 11, belong to a class of article very frequently found in Ireland, and which evidently formed a portion of chain-dress decoration, each consisting of a massive ring, with lateral trumpet-mouths, through which a connecting strap of bronze joined the ring-chains; see Nos. 7 and 8, in which that portion remains. In size they vary from No. 11, which is only  $1\frac{1}{2}$ , to No. 7, which is  $2\frac{3}{4}$  in greatest diameter. In shape they are somewhat oval, and are well represented by Fig. 494, on p. 579. These articles are connected with a chain of double or treble links, and of a larger size than those belonging to the more complete article, No. 1. To each side of this tray, several other strands of chain have been attached, some of which were found along with No. 1; see p. 576; and are numbered according to their several varieties and shape, from 12 to 54. No. 15 is the large double ring, Fig. 490, p. 578. No. 16, a large double ring; 1\frac{3}{2} wide; both together are 2\frac{3}{4} long. No. 20 is a link of five rings, measuring  $3\frac{1}{2}$  by  $\frac{3}{4}$ . The other rings decrease gradually to the size of those used with No. 1.

Tray CCC contains forty rings, for armour decorations; numbered from 55 to 94. The three first rows contain eighteen rings,

varying in diameter from less than an inch to about 2 inches; plain, perforated on each side for the passage of a traversing connecting strap, or wire, but without lip or decoration around aperture. thickness they vary from  $\frac{1}{4}$  to  $\frac{5}{8}$  of an inch; some are solid, and others are hollow; see Nos. 59 and 60. The fourth row contains articles of the same description, but still larger, and all solid, and varying in size from  $1\frac{7}{8}$  to  $3\frac{1}{8}$ . The fifth row consists of three large hollow rings. No. 77, imperfect, is  $1\frac{3}{8}$  thick, and  $4\frac{1}{4}$  in diameter of ring. No. 78 is thinner, and only  $3\frac{3}{4}$ . No. 79 is  $3\frac{1}{2}$  wide, and  $1\frac{1}{4}$ thick. The remaining fifteen rings have lateral apertures, with raised mouths, and vary in size from  $1\frac{5}{8}$  to  $3\frac{1}{8}$  in greatest diameter. They present much variety, both in shape of ring and later apertures, the latter of which are but slightly everted, and none of the true trumpet-shape. In No. 81, the tubular margins of the apertures incline inwards, and in No. 91 they are peculiarly small. No. 86 is elongated in shape. They are all more or less solid, either from casting, or by subsequent filling up with lead or composition.

Tray DDD contains one hundred and thirty-seven plain bronze rings, numbered from 95 to 231, and varying in diameter from  $\frac{7}{8}$  to 3 inches, and in thickness from  $\frac{1}{8}$  to  $\frac{3}{8}$ . None of them appear to have formed portions of loops or ring-chains, but were cast single, and present great diversity in thickness, as well as fineness of casting. They are all solid, and belong to that class of article heretofore styled "ring-money;" but in their formation there does not appear to be any arrangement as to either size or weight. They were probably used either for harness, or in connexion with armour or personal decoration. The two last articles on this tray are slender and penannular; both may have been used as bracelets.

Tray EEE contains three hundred and sixty-nine small bronze rings, numbered from 232 to 600. The first twelve rows are made up of small thick rings, varying in width from  $\frac{5}{8}$  to  $\frac{3}{4}$  of an inch; all cast solid; single, and mostly flat. Some are a little worn on one side of the inner edge, as if from attrition; see No. 463. The eleven lower rows are composed of much slighter and larger rings, mostly flat, and varying in size from  $\frac{3}{4}$  to  $1\frac{3}{8}$ ; several are corroded on the surface. Nos. 544, 545, and 546, are peculiarly thick. No. 593 looks as if punched out of a piece of metal, and not cast. Nos. 471, 473, 478, 479, and 486, were found at Headford, county Galway, and—

Presented by R. J. M. St. George, Esq. A large proportion of the remainder were discovered near Cashel, county Tipperary.

Tray FFF contains thirty-two articles, totally different in character from the foregoing, and consisting of a few small, and a large number of massive rings; numbered from 601 to 632. The top row contains seven thick rings, from \$\frac{1}{8}\$ to \$2\frac{1}{4}\$ in diameter. No. 601 is not closed, and has transverse perforations on both sides of section, as if for uniting it by a wire. No. 602, a broad ring, ornamented on surface by transverse and oblique lines. No. 603 was, with 608—

Presented by the Shannon Commissioners. The latter was found near the site of the old Bridge of Banagher. In the second row, Nos. 609 to 614 form a chain of six rings, varying from \$1\frac{3}{8}\$ to \$3\frac{1}{9}\$ in diameter, looped into each other by three enclosed specimens. No. 615 is a solid bronze armlet, not Irish.

The third row contains four slender rings, averaging 31 inches across, on the two first of which play small perfect cast rings, one of which is much worn, as if from long use. The rings on the fourth and fifth rows are larger and thicker, and were either cast in two sections, and then united, or hammered upon a mandrill, and subsequently filled with a composition. One small ring plays on No. 625, and two on No. 626; figured at p. 570. No. 621 was found in gravel, under 4 feet of peat, in townland of Tinderry, barony of Eliogarty, county of Tipperary, and -Presented by the Board of Works. The small rings which play on the larger ones are identical in character with many of those arranged on Tray EEE. The six last are very large, averaging  $4\frac{1}{4}$  wide; the last is  $1\frac{1}{4}$  thick. Some are hollow, and others partially so; see No. 631, where a want on the side shows the interior, as well as the mode of joining. All these were evidently worn as personal decorations on the extremi-No. 630 was found at Headford, county Galway, and—Presented by R. J. M. St. George, Esq.

Tray GGG contains fifty bronze buckles, double or single, of different patterns, numbered from 633 to 682; but none are of much antiquity; in size they vary from  $\frac{7}{8}$  to  $\frac{1}{8}$  inches; some were possibly used in harness, but others were evidently personal. No. 660 was —Presented by R. A. Gray, C. E.

RAIL-CASE P, continued from p. 518, contains a number of small specimens, appertaining to tools, food implements, household eco-

nomy, music, personal decoration, and miscellaneous articles, not placed on trays, but numbered in continuation of their respective species, most of which have already been described.

Tools, continued from p. 552.—No. 86, a brass awl, with square shoulder;  $3\frac{5}{3}$  inches long. No. 87, ditto, from Gweedore, and—Presented by Lord George Hill. No. 88, a curved article, with flattened extremities, like a modelling tool, resembling a stylus;  $4\frac{1}{8}$ . No. 89, ditto, single, notched at one end; plate portion decorated on one side; 2½. No. 90, ditto, not notched. No. 91, a narrow, curved implement, flattened at one end; 7: see No. 101. No. 92, a very perfect narrow spoon-shaped implement, with circular handle; 7. No. 93, a long narrow tool, sharp at one end, bent and circular at the other, like a modelling tool;  $6\frac{1}{8}$ . No. 94, ditto, but imperfect in point; 4½. No. 95, a long, narrow, curved implement, with boss near centre; 93. No. 96, a bronze circular file, straight, like a modelling tool. No. 97, bronze implement, like a tool handle; 41. No. 98, a straight implement chisel-edged at both ends. No. 99, a small bronze forceps-shaped implement, with half-round spring; holes in legs, as if for the insertion of points;  $2\frac{3}{8}$ . No. 100, a hinged implement, evidently a tool, but of unknown use; 37 (Dawson). No. 101, a two-pronged article, like a surgical instrument, riveted at one end;  $5\frac{3}{8}$ —Presented, with No. 91, by Shannon Commissioners. No. 102, fragment of a delicate jeweller's forceps; 27. No. 103, a small bronze tool, square at one end, to fit aperture in leg of No. 99.

Eighteen needles, numbered from 77 to 94, and varying in length from 15 to 4½. Nos. 77 and 78 are figured at p. 546. No. 96, from Gweedore, was—Presented by Lord George Hill; and No. 93, from Dublin—by Park Neville, C. E. No. 95, a large brass thimble, found at Trim—Presented by Dean Butler. No. 96, the toilet article, figured at p. 549. No. 97, ditto, larger; 3½. No. 98, ditto, plain, with decorated head, wide fork; 3½. No. 99, an ear-scoop, handle decorated; 3½. No. 100, ditto, plain; a fine example of antique bronze, with greenish polished patina; 3½. No. 101, the bronze razor figured and described at p. 549. No. 102, ditto, smaller; 2½. No. 103, ditto, imperfect; 2½. No. 104, a tweezers, figured at p. 549; procured with No. 110; from Ballinderry. No. 105, ditto, slender, decorated; 2½. No. 106, ditto, plain. No. 107, ditto, slender.

No. 108, ditto, small broad blade, with running loop ring at end;  $1\frac{3}{4}$ . No. 109, ditto, small, rude;  $1\frac{1}{3}$ . No. 110, ditto. No. 111, the ring-lock figured at p. 548. No. 112, top of weight-box. No. 113, a weight-box, perfect, and highly ornamented, with compartment at bottom for holding small weights;  $1\frac{3}{4}$ . No. 114, brass ink-bottle, in shape of trooper's boot;  $3\frac{1}{3}$  long. No. 115, a brass ink-bottle, with rude decorations on sides; suspending loops;  $1\frac{7}{8}$ . No. 116, ditto, oval, with detached cover; five suspending loops;  $2\frac{5}{8}$ .

Personal Decorations—continued from Tray AAA. No. 621, a large double-looped button, with rude cast decorations in front, each perforated with double holes behind;  $3\frac{1}{2}$  inches in length of article. No. 622, a plain button. No. 623, the enamelled button figured at page 572. No. 624, an enamelled button covered with glass; "found in the mountain, four miles from the Seven Churches, Glendalough." No. 625, a double shirt-stud, or wrist-button; perfect, decorated. No. 626, a portion of antique buckle. No. 627, a pendant, with loops posteriorly. No. 628, a piece of decorated openwork, like the end of an earring. No. 629, a small bronze plate, decorated with the figure of a griffin; riveted. No. 630, ditto, of open-work.

Next follows a collection of antique Thumb and Finger-Rings,

the largest of which, No. 631, here figured the true size, is apparently of very great antiquity. The square central depression is roughened irregularly, possibly for the reception of enamel paste; but in the side concave hollows the raised markings are too regular for that purpose, and much resemble some of those lines incised on the

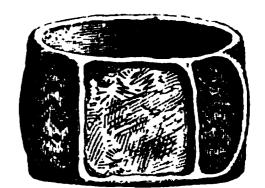


Fig. 497, No. 631.

stones of the tumulus at New Grange; the hoop is also decorated, but is slightly corroded; it was found in the county Cavan. No. 632, a large brass thumb-ring, with seal, and C. I. H. B. in Irish characters at top; 1½ wide. No. 633, ditto, with monogram on stamp; has remains of gilding. No. 634, a thumb-ring, resembling No. 631. No. 635, a broad ring, rudely decorated on face (Dawson). No. 636, a thumb-ring, with torque-pattern hoop, and seal at top, bearing a heart and ancient inscription; remains of gilding; probably ecclesiastical. The remaining specimens of this description

are finger-rings. Nos. 637, 638, and 639, are small, flat, decorated hoops, enlarged in front. No. 640, a thin, flat hoop of red metal, with a rude decoration representing a heart between two hands. No. 641, a finger-hoop, open at side, rudely decorated with antique markings. No. 642, a plain thick hoop, with an inscription on the inside; found in "an ancient building, in the Co. Carlow." No. 643, a small thin decorated hoop. No. 644, a thin twisted hoop, with a heart-shaped decoration in front. No. 645, a hoop, with a raised antique stone-setting. No. 646, a chain of three decorated rings, looped in each other (Sirr). No. 647, a large collection of ring-chains, like those already described and figured at p. 577; well cast; several consisting of five loops, and one of seven; many are joined together with bronze straps; found, with a gold ornament, in the county of Sligo. Nos. 648, 649, and 650, are three small bronze straps, cleft at one end, and solid at the other—possibly spur loops.

The total number of articles of bronze or brass belonging to Personal Decoration, not including spurs, at present in the Museum, amounts to 1433, viz.:—620 on the four large trays in the Gallery; 30 in this rail-case; 683 on the six small trays in the second compartment of the northern ground-floor, of which there are a great number of duplicates; and 100 upon the different "Find" trays in the third compartment on the southern ground floor.

AMUSEMENTS.—The only object in this Case apparently used in a game of any description, is the bronze die, No. 1, measuring  $\frac{7}{8}$  of an inch on each face, and having a heart, diamond, club, and spade, on four sides, the remaining faces being blank.

MUSICALINSTRUMENTS—are represented by a collection of twentytwo harp pins, varying in length from  $2\frac{1}{8}$  to  $4\frac{1}{8}$  inches; square in the head, and perforated in the small extremity for holding the string. They are numbered from 17 to 32, in continuation of the trumpets, described at p. 633; the majority were obtained from crannoges. [For miscellaneous articles, see continuation on p. 636.]

#### HORSE-TRAPPINGS.

Connected with personal decoration and costume, Horse-Trappings follow next in order, according to the arrangement and the classification adopted in this Museum. Such frequent mention is made in early Irish writings of the chariot-roads,

together with chariots, horses, harness, and horse-trappings, that we might naturally expect to find some remnants of them even at the present day. Topographers have recognised the sites of some of our ancient roads, especially those in the vicinity of the remains of the royal residence at Tara. Chariots, with their occupants, and mounted warriors, have been sculptured on a few memorial crosses, especially those of Kells and Kilclispeen; and one of the largest collections of ancient harness in north-western Europe is that now preserved in the Royal Irish Academy. It is arranged on thirteen Trays, from HHH to **uuu**, in the second and third compartments on the groundfloor in the northern side of the Museum; and consists of bronze spurs, stirrups, saddle-knobs, bridle-bits and pendants, harness-stude, bosses, and other decorations, a chariot trace, crotals, &c., amounting altogether to as many as 282 specimens.

Spurs, although now fallen into disuse as a portion of the indispensable costume of an equestrian, were articles of great importance from about the middle period of the Christian era to a comparatively recent day. In shape they presented great variety, and had much art expended upon them; some were very costly, and used as the insignia of knighthood. They were made of iron, bronze, silver, and even gold; many were gilt. The Academy possesses a collection of forty spurs, arranged on Trays HEER, and III, including types of nearly all the known varieties of these articles, which hold a middle place between personal costume and horse-trappings. The earliest

form of spur was that known as the "goad" or "prick spur," consisting of a short conical spike projecting from the back of the fork or bow, and without



Fig. 498, No. 1.

a rowel or wheel. Of this very rare variety, the accompanying illustration, Fig. 498, No. 1, is a good specimen. Its total length is 4½ inches; the legs of the fork are unsymmetrical,

the inner one being the shorter, and the strap-holes are different on each side. No. 17, Figure 499, is the representative

of several similar spurs in the Collection, remarkable for the curved bars of the fork or bow, with loops on its lower edge, for the attachment of straps or chains; the rowel is of moderate size, and the lower and back portion of the bow is rudely decorated. Small

bronze loops are attached to the terminal apertures in the fork; its total length is 6 inches. It was found at St. Wolstan's, on the Liffey,

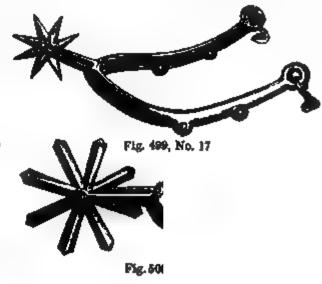




Fig. 501, No. 20.

county of Kildare. The second illustration, No. 9, Fig. 500, represents one of the most perfect and beautiful articles of its kind which has been discovered in the British Isles,—of antique bronze, covered with a smooth greenish patina; very narrow in the bow, and having a large blunt rowel of eight bars, greatly disproportionate to the other parts of the article. It is 6½ inches long, and only 2½ in the clear of the fork, the terminations of which are, as in the case of the prick-spur, unsymmetrical, having on one side a mortice-hole, and on the other a loop, projecting below its edge. From this loop depend two metal straps—one clasped, for the attachment of a leather fastening, the other hinged in the centre, and ending in a buckle; both in the highest preservation, and decorated with minute notches along their edges. These and similar straps and buckles, afford us a clue to the

uses of a great number of small articles attached to Tray AAA, or placed in Rail-Case p. Posteriorly, the upper edge of the bow is decorated with a minute open-work trefoil pat-It, and another article of the same description, were procured with the Dawson Collection, and said to have been found in the same locality, with an interval of many years. By the fourth figure is presented the last variety, the characteristic of which consists in having the rowel-stem large, and bent at an angle, so as in many specimens to represent the human arm. In this example, No. 20, Fig. 501, the bow is only 2½ inches in the clear, and bent so as to fit close round the tendo-Achillis, and pass beneath the projections of the Its total length is 63 inches, of which the stem and rowel are more than one-half. It is highly decorated all over the external surface, chiefly with that form of beaded ornament shown on the costume of the figure represented among the miscellaneous articles at page 640, so that it probably belongs to the same age. The buckles and loops are of iron. Spurs of this description, with large rowels and angular stems, resemble those shown upon the effigies of knights in There are six specimens of this description in mail armour. the Collection.\* It is remarkable, that while the bronze spurs are so small in the bow as to appear like heel-spurs, many of those of iron are wide enough to fit on the calf of the leg.

Saddles—in Irish, daillait, a saddle—are represented among the bronzes by four pommel-decorations on Tray 000, of which the accompanying figure, drawn one-third the natural size, from No. 149,

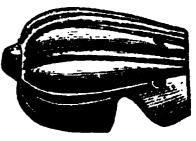


Fig. 502. No. 149.

\* Although there is no ancient Irish name for spur or stirrup, the term Deiligeen brostoe—"the thorn that incites"—is occasionally applied to a shoe-spur in Connaught. In O'Dugan and O'Heerin's Topographical Poems, golden spurs (spuir) are mentioned under A. D. 1372-1420. Spencer says the Irish had neither saddles nor stirrups; but, like many other assertions of that author, it is refuted by modern investigations. Metal stirrups were unknown in England until about the sixteenth century. See Fosbroke's Encyclopædia of Antiquities.

is a good illustration. It is cut off beneath obliquely, and spreads out into flanges with rivet-holes for attaching it to the saddle-tree. In the great Brahe Museum at Scokloster, near Upsala, may be seen the largest collection of ancient saddlery at present in Europe; and there several such articles as that figured above have been preserved.\* Heretofore, these articles were believed to be sword-pommels.

There are eight bronze STIRRUPS arranged on Tray JJJ, of great diversity of form, and some of them highly decorated, of which the following illustrations are good exam-

ples. No. 46, Fig. 503, is a very small triangular stirrup, 43 inches high, and 33 wide, with the strap-bar placed behind a decorated plate which rises above its level; but it is all cast in the one

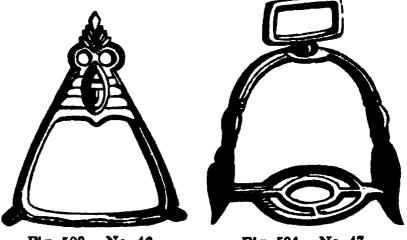


Fig. 503. No. 46.

Fig. 504. No. 47.

piece. The oval ornament in front represents a human face. No. 47, Fig. 504, is small, and highly decorated; 5 inches high, and 4 wile, with a square swivel-staple at top for the attachment of the strap, the wheel-shaped foot-plate being 2\frac{3}{4} wide. Some of the bronze stirrups in the Collection were gilt.

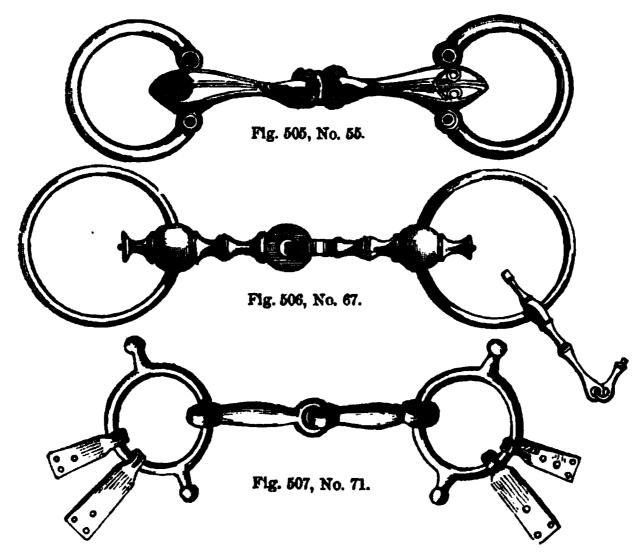
Bridge-Bits—in Irish, bealmhach—abound in the Academy's Collection, amounting to as many as eighty-eight specimens, either complete or fragmentary, and are arranged on five Trays, from KKE to 000. They may be divided into—1, the simple riding snaffle or burdoon, with a strong mouth-piece in two parts, having an exceedingly well-fitted hingestud between, and large cheek-rings, which, as well as the extremities of the bit, are in many specimens highly ornamented, and in some instances jewelled or enamelled: 2, the double-

<sup>\*</sup> The Author is indebted to the Baron von Kræmer, Governor of Upsala, for great kindness in facilitating his antiquarian researches while in that part of Sweden in the summer of 1859.

rein driving-bit, without an intermediate piece in the hinge, but with metal straps or rods, running on the cheek-rings for the attachment of the reins; and 3, the small (and probably driving) bit with an iron mouth-piece, and no rings, but broad and in most instances highly decorated open-work cheek-plates for the attachment of the reins.

The uppermost of the three illustrations, on page 605, is a good example of the first variety, with a raised cast ornament on the mouth-piece, and decorated studs raised on one face of the rings, for limiting their play in the holes of the bit. mode in which these rings were formed is a subject of interest to the inquirer into the manufactures and workmanship of the ancients. In several instances the ring is spliced and riveted: see Nos. 60, and 61. In a few, a brazed joining may be observed on the outer side of the ring. The majority, however, appear to have been cast along with the mouth-piece; but what contrivance in the moulding, both of this portion and in that of the hinge, was employed, is matter of speculation; as in No. 75, on Tray MIMIM, and which was never used, the narrow portion of the ring barely turns in its collar. In several instances the ring was cast with but one stud, and the second was riveted to an enlarged flat boss on the opposite side. some cases the pivot passed through the ring, but in others it went down only for a sufficient depth to fasten the stud. By this means this decorated portion of the ring may, in the casting, have been removed from the mouth-piece, and thus interfered less with the flow of the metal; and could also be fitted and adjusted better subsequently. In two very remarkable examples, Nos. 77 and 78, the ring was cast in a penannular form, with hollow bulbs at the extremities, into which the pivot that played in the hole of the mouth-piece passed—by springing back the ring-ends. The pivot was then riveted across; and in No. 77 both it and the rivets were formed of cast-iron, the uncut slag of which still remains. For the details of this curious combination of bronze and iron, see page 617.

No. 55, on Tray LLL, Fig. 505, is 103 inches long, and 3 in diameter of each ring, the upper decorated studs of which are fastened by pivots; and, like all the others of this variety, the intermediate space between them is smaller than the rest of the ring, although not caused by wearing, as in other cases. It was found with pendant, Fig. 517, and another bridle-bit, on an ancient battle-field in the valley between the hills of Screen and Tara, county Meath. The second and third illustrations, Figs. 506 and 507, from Nos. 67 and 71 represent the second variety. No. 67 is 11½ inches long,



and 33 across the ring, which plays freely through the bit-hole, and has bronze loops attached to it on both sides, one of which, 5 inches long, is here represented—in what manner the reins were attached to these rods is undetermined. The third illustration, Fig. 507, No. 71, also belongs to the second variety; and, like the foregoing, the mouth-pieces hinge without an intermediate portion. In place of studs, the rings have knobbed bars projecting from their outer margins, and four of the metal rein-staples are still in situ. It is much smaller than any of the foregoing, measuring in extreme

length but 9 inches; each ring is 2½ wide, exclusive of the projections; it is one of the articles discovered at Navan: see page 573. Pieces of the buff leather remain between the sides of the metal straps in some specimens.

The details of several of the snaffle-bits of the first variety are well worthy of examination, presenting great beauty both in design and execution, examples of which are afforded by the two following cuts, drawn from Nos. 52 and 64. The

former is a portion of a perfect well-preserved bit, 9½ inches long by 2¾ wide in

the ring, differing in decoration from that shown by Fig. 506. In the latter, drawn from a slender specimen, 12½ inches long, and 3½ wide in diameter of ring, the studs are counter-sunk for the in-



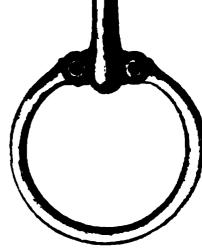


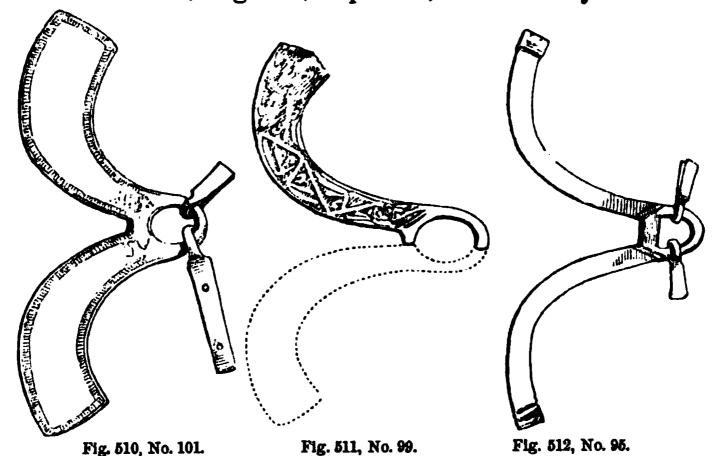
Fig. 508, No. 52. Fig. 509, No. 64.

sertion either of stones, glass, or enamel. There are thirty-seven bits of these two varieties, twenty of which are quite perfect, and most of them in fine preservation.\*

In the third variety there is much greater diversity both in shape and ornamentation than in the two former; but, although there are the remains of as many as fifty-one distinct specimens, in no single instance is this form of bridle-bit perfect on both sides, and connected by its iron mouth-piece.† This may be accounted for by the lightness of the cheek-pieces themselves rendering them liable to fracture, but is particularly due to the circumstance of the mouth-piece having been formed of iron. At first the cheek-plate was a plain curved

- \* In the Proceedings and Papers of the Kilkenny and South-East of Ireland Archeological Society for November, 1857, may be seen a very beautiful chromo-lithograph of a bridle-bit, with highly decorated and enamelled flat rings, said to be found at Kileevan, near Analore; but neither the Guelloche pattern, nor the Grecian scroll thereon, is Irish—the former is purely Scandinavian.
- † In Mr. Shirley's Account of the Territory and Dominion of Farney, may be seen an engraving of a very perfect bit of this description, with bronze cheek-plates attached to the iron mouth-piece, p. 22.

plate of metal turning backwards from a straight bar to which the iron mouth-piece was attached, and having a semi-oval loop behind, on which the rein-staples—generally two in number—played, as shown in the three following illustrations, drawn from specimens on Trays **NNN** and **OOO**. No. 101, Fig. 510 is plain, and measures 6 inches in its extreme width. No. 99, Fig. 511, imperfect, is beautifully decorated



with a raised ornament somewhat in that of the style of the twelfth century. No. 95, Fig. 512, is remarkably slender, and measures 6 inches across; the two metal rein-straps still remain on the posterior loop of this variety, of which there are two examples in the Collection;—both found in the river Bann, and—Presented by the Board of Works.

In the next series of illustrations, we perceive an advance both in ornamentation and purpose; for, by attaching the reins at a distance from the mouth-piece, a better purchase was secured, and the power of a curb effected. This is well shown in No. 103, Fig. 513, in which the cheek-pieces, composed of single bars, 4\frac{3}{4} wide, end in dogs' heads, and to the posterior member of which the rein-staples are attached. A still more simple bridle-bit is that shown by No. 91, Fig. 515: it is 4\frac{1}{4} wide, flat on one side, but triangular, and also decorated

on the other. A portion of the iron mouth-piece and two reinstaples remain. Of the decorated specimens, there are at least three sub-varieties—the *Horse-pattern* of which, No. 132, Fig. 514, imperfect, is a good example. It is much worn, but, when complete, measured 4\frac{3}{4} inches in width; it was—

Presented by W. Longfield, Esq. Of this variety there are five

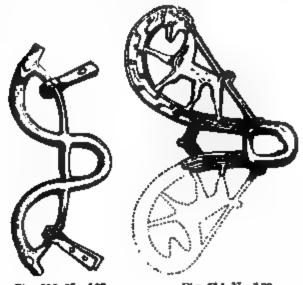


Fig. 418, No. 100.

Fig. 514, No. 183.

Fig. 515, No. 91.

other specimens, Nos. 112, 113, 121, 122, and 130. Another form of decoration, belonging to the same description of cheekpiece, is the *Dragon-pattern*, of which there are several specimens, see Nos. 105 to 108, 110, 111, 117, 120, 124 to 128, and 131, &c. A third sub-variety of cheek-piece ornamentation resembles an inverted letter B—all the four specimens of which are beautifully cast, and in high preservation, see Nos. 104, 109, 116, and 125.

The fact of the combination of bronze and iron, perhaps to economise the former, in all the specimens of the third variety, as well as the style of ornamentation, evidently refers these articles to a later period than those of the first and second varieties. In a few comparatively modern specimens—see Nos. 134 and 135—the cheek-piece is straight, like that in a snaffle-bit of the present day. For the details of the cheek-pieces, see description of Trays NAM and OOO, pages 618 to 619.

PENDANTS .- Scarcely a year passes without some bronze

spur-shaped articles, like those figured below, being found in our bogs, chiefly in Connaught. They vary in length from 10 to 14 inches, and in breadth from 4 to 8. Many are highly decorated, and some were enamelled on the enlarged extremities of the stem and bow (see Fig. 519). The straight portion terminates in a knob, either plain or decorated; or is hollow for holding a plume of hair or feathers, like similar head-stall ornaments attached to the bridles of most cavalry regiments until very recently. By the public these articles have been regarded either as spurs worn on large jack-boots, or decorations affixed to forehead-bands, and which rose above the horses' heads. Others believe them to be censer-holders; but a careful examination and comparison of the thirty-two specimens on Trays PPP, QQQ, and RRR, will show that none of these hypotheses are tenable. They were evidently bridle ornaments, but are too narrow to fit on any horse's head; and the loops at the

ends of the forked extremities, or (as in some cases) on the insides of these portions, are in nearly every instance worn in such a manner as proves that they were

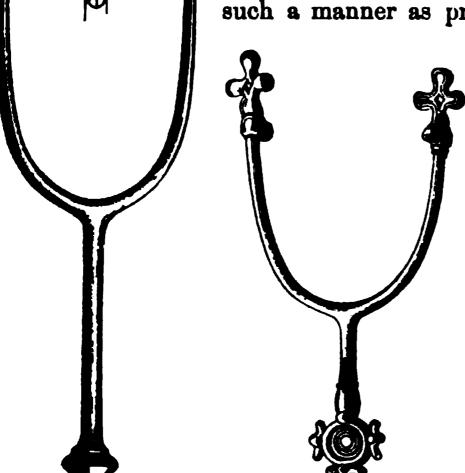


Fig. 516. No. 171.

Fig. 517. No. 177.

worn in an upright position. Figures 516 and 517, from Nos. 171 and 177, represent typical specimens of this ancient horse-trapping. The former is 12½ inches long, and 4½ wide; it is in fine preservation, and is decorated both upon

the knob and external surfaces of the prongs by a raised cast line, shown in the central illustration of that Figure. It was found along with the bridle-bit, Fig. 505, and is decorated in the same manner.

No. 177, Fig. 517, is shorter and broader, and the ornamentation more elaborate; it is here drawn in perspective, in order to exhibit the decoration at the ends of the bow and stem, as well as the suspending loops, which are placed at right angles with the line of the fork, and, like all the others of this variety, are worn underneath: one leg is shorter than the By the two following cuts (one-half the true size) are shown the details of the extremities of Nos. 171 and 157, the former of which is figured above; and the latter, which is drawn from a very perfect and beautiful specimen -Deposited by the Royal Dublin Society-also shows the remains of red enamel upon the decorated boss within the

outer rim. These articles would appear to have been slung from the rings of the bridle-bit, or beneath the attached horse's jowl. In the latter position, they could only serve as ornaments; in the former, they would prevent the horse from grazing: see also the author's observations in the Proceedings, vol. vii., page 161.



Fig. 519. No. 157. Fig. 518. No. 171.

Vallancey figured one of these pendants, from a specimen which still remains in the Museum of Trinity College, and stated that it had been suspended by gold chains from the bridle-rings; but acknowledged that he never saw the chains, as they were "secreted by the peasant that found it." As, however, in the case of the "spectacle-brooch" alluded to at page 566, an endeavour was made either to carry out the views of the author, or to establish the rumour as to the state in which the article was found-modern brass chains were added, as shown in the drawing in the Collectanea, vol. iv., pl. viii., fig. 1, and as may still be seen attached to the specimen. In order to make good the spur theory, a dealer absolutely cut a slit in the knob, and inserted an iron rowel in one of these articles: see No. 175, page 621.

In the Book of Rights we read of various highly-caparisoned steeds among the stipends of the chief kings, and the tributes of the chieftains: and with them coats of mail and "rings" (possibly such as those already described at page 576, &c.), together with *Scings*, a term which O'Reilly translates "horse-trapping," and which was probably part of a bridle, or its pendant. We also read of "bridles of old silver," and in one entry of "twenty bridles, flowing, gorgeous with cruan and carbuncle."\*

CHARIOT FURNITURE.—Among the collection of articles found at Navan, and enumerated at page 573, was a boss of iron, 3\frac{3}{2} inches in diameter, covered on its external face with

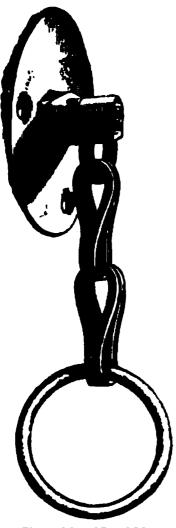


Fig. 520. No. 189.

a plate of white metal, from the centre of which projects a massive bronze stud, in the shape of a dog's head (like that of a blood-hound), 11 inch long, having a human face engraved on its extremity. a large aperture in this projection depends a piece of bronze chain, composed of two rings and two double loops, the latter resembling those of iron found in crannoges. There are but two purposes to which this article, represented by Fig. 520, could be assigned,—that of the attachment of a trace, or a straddle-terrett, for suspending the back-band or the shafts of a chariot (Carbat); but the size of the nail-holes in the boss, and an examination of the wearing

in the stud-hole, inclines us to adopt the former hypothesis.

HARNESS STUDS, Bosses, Rosettes, and other Horse-Trappings, many of undoubted antiquity, and amounting to sixty-one specimens, have been arranged on Trays sss and TTT, in

<sup>\*</sup> Cruan, says Dr. O'Donovan, in his translation of the Book of Rights, was "some precious stone of a red and yellow colour,"—orange; probably it was amber.

the Northern Compartment of the ground-floor. They consist chiefly of decorated rings, or triangular loops: with three star-like staples attached, in several of which, as well as in those belonging to bridles, portions of thick buff leather remain. The

accompanying illustration, drawn one-half the true size, from No. 194, found in the river Nore, affords a good example of this description of article, which was evidently a portion of the Tiarach, or breeching. Some of these specimens of ancient harness are elaborately decorated, first in casting, and after-

wards, by the punch and graver.\*



Fig. 531. No. 194.

CATTLE-BELLS and CROTALS.—Under the head of horse-trappings may be placed small globular bells, and pear-shaped articles called crotals, of the same nature, and of which the subjoined cuts are good illustrations. Fig. 522, No. 279, represents a globular sheep-bell, 25 inches in diameter, having at top a staple for its attachment to a strap

at top a staple for its attachment to a strap or cord, and formed of two hemispheres of thin metal, joined in the centre, with apertures in both; those in the lower being connected by a wide split. The lower segment is

decorated; and within the bell is a piece of metal, which acts as a clapper. A very musical sound is emitted by this and other bells of the same shape. On the bottom of several are the

Fig. \$22, No. 279.

Fig. 523, No. 282.

<sup>\*</sup> Simple and distinct as those articles now appear to the eye of common sense, they played their part in the theoretical archaeology of the past; for one of these has been figured by Vallancey as a "triangular talisman," see Collectones, vol. iv. pl. ziv., fig. vi.

Of this variety of article there are thirteen owners' initials. specimens in the Collection, arranged on Tray uuu, and ranging in size from 11 to 21 inches, as in that figured on p. 612. The Irish antiquaries of the last century described and figured these small globular cattle-bells as crotals, confounding them with the ecclesiastical bells of a totally different shape and use; thus, Ledwich, and others following him, called such an article a "Bell Cymbal used by the clergy, and denominated a crotalum by the Latins; consisting of two metallic spheres, hollow, and containing some grains of metal to make them sound, being connected by a flexible shank." And, in order to make good the latter assertion, he represented two sheep-bells joined together. See "The Antiquities of Ireland," second edition, fig. v., p. 228. Walker, and later writers, followed in the same track. In connexion with articles of this description, may be seen a number of small, tinkling, globular bells, fixed on flexible wires, and evidently used for attaching to dogs or horses.

About thirty years ago, a great number of antique articles of a peculiar-coloured bronze were discovered at a place called Dowris, near Parsonstown, in the King's County, to which we have already referred at page 360 (see also trumpets, p. 626). Among these were discovered several hollow, pear-shaped bells, with rings at top, and pieces of metal internally; they, however, emit a very dull, feeble sound, but are evidently of the same class of articles as the foregoing, although, when found, they were believed to be the crotals of the ancient Druid priests, used in augury, and when pronouncing their oracles. That they are of great antiquity, may be inferred from the character of the metal of which they are composed, as well as the circumstance under which they were found. Figure 523, drawn from No. 282, on Tray **uuu**, 61 inches long, including the ring, and 8 in girth, is a good example of this article. In casting, the metal appears to have been poured into the mould by an aperture at the side, through which the

core of clay that contained the metal-clapper was broken up. In some instances the article is closed; in others, there is a narrow side aperture. The line of junction between the two sides of the mould is very ostensible in all, so that one of these would appear to have been cast in two portions, and joined afterwards. The rings and staples were cast together, possibly in the same manner as the bridle-bits described at page 604. That figured on page 612, and the two other similar articles in the Museum, were presented by Lord Oxmantown to the late Dean Dawson, with whose collection they came into the possession of the Academy. See Proceedings, Vol. IV., pages 237 and 423; and also Dublin Penny Journal, Vol. I., p. 376.

The following list enumerates all the horse-trappings, and articles appertaining thereto, in the Collection.

# BRONZE, VI.—NORTHERN GROUND-FLOOR, CENTRAL COMPARTMENT.

Shelf II., Tray HHH, contains twenty-one spurs, numbered from 1 to 21. No. 1 is figured at p. 600—see, also, Proc., vol. vi., p. 203. Nos. 2 to 8, on first and second rows, are antique bronze spurs, with cleft stems for rowels, and chiefly remarkable for the apertures at the end of the prongs, for attaching buckles or straps to. These are double in all, except No. 7, which has an open-worked bow. No. 5 was—Presented by W. R. Wilde, Esq. Nos. 9 to 12 are probably heel-spurs, with large rowels, mostly blunt; very narrow in the bow. No. 9 is figured on p. 601. No. 10 is the fellow of No. 9, and, with No. 11, has bronze straps and buckles attached to the bow-loops. In the latter, one prong is much longer than the other (Dawson). No. 12, a very narrow heel-spur, 5½ inches long, and only 1½ between prongs, which are sharp, and possibly passed into the leather; the rowel is  $2\frac{1}{4}$  in diameter. The next row consists of five curved spurs, with loops on their lower edges, of which No. 17, figured on p. 601, is the type. No. 13 was—Presented by the Rev. T. Porter. In the fifth row are four spurs, with large sharp rowels, in which the rowel-stem is bent at an angle. No. 18 is highly gilt. No. 20 is figured and described at

p. 601, as the type of this sub-variety. No. 21 is 6½ long, and only 2½ between extremities of bow. The three last are ornamented.

Tray III contains seventeen spurs, and two rowels, numbered from 22 to 40. No. 22, ornamented on rowel and sides, is of the same description as No. 20, and only  $2\frac{s}{4}$  wide. Nos. 23 and 24 have the rowel-stems bent at right angles with the bow. No. 27 (Sirr). No. 28, decorated with metal straps and buckles. In No. 32 the prongs of the bow are enlarged, and the rowel-stem decreased. No. 33, imperfect on one side, has a loop at junction of stem with bow, as if to support it by a strap attached to the boot. No 34 was—Presented by Maurice O' Connell, Esq. Nos. 37 and 38, large bronze rowels, remainder of spurs wanting. No. 39, antique spur, with loops on lower edge of bow; found at Athlone.—Presented by P. Brophy, Esq. No. 40, a brass spur, with twisted stem, and brass rowel; not antique.

Tray JJJ contains eight bronze stirrups, numbered in continuation of the foregoing, from 41 to 48, and presenting very great diversity, both in form and ornamentation. No. 41, large, 6 inches high, and 5 wide; three bars in foot-piece, bow wide, stud in front of strap-aperture (Dawson). No. 42, small, plain bow and square swivel-staple, cross-bar in foot-piece; 45 high, 31 broad. No. 43, elliptical both in bow and open-worked foot-plate; decorated; has a shell-shaped ornament in front of strap-hole; 6. No. 44, massive, highly decorated on the surface, and originally gilt; openwork foot-plate, 21 wide; strap-bar stands in centre of top of bow; has a highly decorated cast ornament in front; 61 high, 41 broad. No. 45, plain, modern shape, solid foot-plate, 5. No. 46, narrow and triangular, figured at p. 603. No. 47, figured at p. 603 (Dawson). No. 48, imperfect, large, massive, open-worked foot-plate; 5 wide, and 21 broad.

SHELF III, Tray KKK, contains ten snaffle bridle-bits; several ornamented; numbered from 49 to 58. No. 49, the massive mouth-piece of a bronze bridle-bit, with small iron rings, probably not the originals; 9. No. 50, perfect; 10; ring 2\frac{7}{8}, with decorated studs; found at Ballynaminton, King's County, and—Presented by G. Marsh, Esq.—See Proc., vol. iii., p. 185. No. 51, perfect, slightly corroded; 10\frac{1}{2}; rings, much worn, each 2\frac{3}{4}; bit and knobs deco-

rated. No. 52, in fine preservation, resembles No. 55; decorated at end of bit;  $9\frac{1}{2}$ ; rings,  $2\frac{3}{4}$ .—See Fig. 508, p. 606. No. 53, a mouth-piece, without rings, highly decorated on broad flanged extremities, narrow in hinge; part of ancient patina remaining;  $7\frac{5}{8}$ . No. 54, perfect, plain;  $10\frac{1}{4}$ ; ring much worn between studs;  $2\frac{7}{8}$ ; found at Loughran's Island, on the Bann.—Presented by the Board of Works. No. 55, perfect; figured at p. 605. No. 56, in high preservation; wants one ring, the other slender;  $3\frac{7}{8}$ ; remarkable for its lightness;  $12\frac{1}{4}$ ; stud decorated, with double spiral scroll (Dawson). Nos. 57 and 58 are of a different pattern from any of the foregoing; long, slender bits, terminating in duck-billed projections; rings flat, knobs small; the former is  $11\frac{7}{8}$  long, and the rings  $5\frac{1}{8}$  wide; the latter is  $12\frac{1}{8}$ , of which the bit is  $9\frac{1}{4}$ ; ring-knobs decorated; space between knobs very narrow; found at Tulsk, county Roscommon.

Tray LLL contains nine bridle-bits—seven snaffles, and two driving bits,—numbered from 59 to 67. No. 59, the mouth-piece of a bit, wanting rings, joined by double hinge; 6\frac{3}{2} long (Sirr). No. 60, perfect, mouth-piece small, and made up of three pieces, of nearly equal size; rings slender, 3; riveted at flat ends; one stud remains; 11 (Dawson). No. 61, perfect, one large ring spliced but wanting rivets;  $10\frac{2}{5}$ ; ring  $2\frac{7}{8}$ ; found in the Boyne, at Kinnefad Bridge, barony of Warrenstown.—Presented by the Board of No. 62, perfect, large, hinge short; 12; rings 3\frac{1}{2}; large stud-knobs. No. 63, perfect, large, bit massive; 13; rings, 41; decorated on one side. No. 64, slender; 12½; rings unsymmetrical, decorated, and provided with jewel-holes; 35. No. 65, ditto, plain; 13; ring, 3\frac{3}{8}. No. 66, a driving bit, without intermediate portion in hinge; perfect, large, decorated; a circular knob projects beyond edge of ring, furnished with rod-like rein-staples on each side;  $12\frac{1}{3}$ ; ring,  $3\frac{5}{8}$  (Dawson). No. 67, ditto; figured and described on p. 605.

Tray MIMIM contains four perfect, and fourteen imperfect snaffle and driving bits; numbered from 68 to 85. No. 68, a very perfect and elegantly formed bridle-bit of bright yellow metal, in fine preservation, but partially cleaned before it came into the Collection; 11½; rings flat, 3½; resembles Nos. 57 and 58.—Presented

by Dr. Kelly, of Mullingar. No. 69, perfect, but slightly corroded on surface; 11½; rings large, knobs plain; 3½. No. 70, ditto, in imperfect preservation; plain; 121; rings imperfect; 53.—Deposited by Royal Dublin Society. No. 71, the driving-bit found at Navan; figured at p. 605. No. 72, an unused bridle-ring, with mouldmarks apparent all round, and showing that the ornate studs were cast as part of the original article; 4. No. 73, a flat bridle-ring, with a portion of the duck-bill bit. No. 74, part of a mouth-piece, and ring, corroded. No. 75, a very remarkable specimen; half of a mouth-piece, and a flat ring, like No. 73. This article is at present as it came from the hands of the moulder, and has never been fitted to the other half of the bit. The hole has not been drilled or punched through the flat hinge-wing, although there is a slight indication of where it was commenced in the centre of that part. portion of the ring which plays in the hole of the bit is much smaller than the remainder, and fits the aperture so accurately, that it barely revolves in it; so that, so far as this article is concerned, the mode of casting is unknown. Upon the hinge-plate may be seen some file-markings beneath the dark-brown patina with which the entire article is covered. This very beautiful specimen was evidently in process of manufacture. No. 76, a bridle-bit, wanting one ring; in fine preservation; apparently little used; 61; ring-knobs, decorated; 3\frac{3}{4}. No. 77, a curious penannular bridle-ring; 3; illustrating the mode in which such articles were formed, and attached to the bit. A circular iron bar passed into holes in the enlarged sockets of the extremities, and was fastened by cross-rivets behind the wide sockets. The fluid iron was evidently poured in through one of the side rivet-holes, and formed slags, which were never cleared off; so that this article, like the former, was evidently in process of completion, and is one of the most curious instances of the combination of bronze and iron which has yet been disclosed in the examination of those antiquities. No. 78, a penannular bridlering, similar to the foregoing, with a connecting bar of bronze placed within the sockets, probably by forcibly springing back the ring; decorated; the knobs form shoulders to the superadded pivot. No. 80, both sides of the mouth-piece of a bit, wanting rings and hinge portion; decorated; apparently never used. No. 81, side pieces of bit, wanting hinge and rings, much worn in apertures. No. 82, one side of mouth-piece, decorated, much worn. No. 83, ditto; part of central member of hinge remains. No. 84, the muchworn fragment of a mouth-piece, hinge repaired by an iron rivet. No. 85, fragment of mouth-piece, much worn.

## BRONZE, VII.—THIRD COMPARTMENT, NORTHERN GROUND-FLOOR.

Tray MNN contains portions of thirty-seven bridle-bits, of the third variety, averaging 5 inches wide; numbered from 86 to 122. No. 86, a rudely cast cheek-piece, as if the metal had spilled from the mould; 4 inches wide. No. 87, a cheek-piece, with decorated arm. No. 88, ditto, plain. No. 89, ditto, with two bridle-staples, one containing part of buff leather. No. 90, ditto, small; imperfect. No. 91, figured at p. 608, has portion of iron-bit remaining. No. 92, imperfect. No. 93, a cheek-piece, with long decorated extremities;  $5\frac{1}{8}$ ; two rein-staples, with leather in one; iron rivets. No. 94, ditto; 5\frac{3}{4}; extremities curved forwards; one rein-staple. Nos. 95 and 96, almost identical, but not from same mould; thin, narrow, plain; the latter, which is figured at p. 607, has two rein-loops; both were found at Loughran's Island, on the Bann, and—Presented by the Board of Works. No. 97, rude, plain; imperfect; large flat flanges. No. 98, plain, broad; ornamented. No. 99, imperfect; figured at p. 607. Nos. 100 and 101, two broad, flat, flanged cheek-pieces, almost duplicates; the latter figured at p. 607. 102, one side of ornamented cheek-piece, narrow and recurved. No. 103, figured and described at p. 608. No. 104, a well-preserved cheek-piece, decorated bars, apparently but one rein-staple, which still remains. No. 105 commences a series of decorated cheekpieces, with dragon-ornament, in which the animal is represented turning back towards the loop, and holds in its mouth the decorated stays which pass into the concavity of the article.—See p. 608. No. 106, a dragon cheek-plate; has three conical studs standing out from rein-bars, and is only 37 wide. No. 107, of dragon-pattern. very light and elegant; beautifully cast; 41. No. 108, rude; castmarks remaining but bit-bar much worn; one rein-staple. 109, well preserved; decorated with circular ornament. No. 110, dragon-pattern, badly cast. No. 111, ditto, slender, well cast. With No. 112 commences the horse-pattern, of which there

is a typical specimen at p. 608; rudely cast; much worn in cross-bar; imperfect. No. 113, ditto; decorated on surface, like 109. No. 114, perfect; slender; dragon-pattern. No. 115, ditto, but more massive, and decorated on surface. No. 116, very perfect; same pattern as No. 109; two rein-staples, leather in one. No. 117, complete; dragon-pattern; decorated; two rein-loops. No. 118, ditto; one rein-loop; found in Ardakillen crannoge. No. 119, ditto, finely cast; two rein-staples, leather in one. No. 120, a new pattern, in which the dragon-ornament has been preserved, but a second bar occupies the space between the wings in front of the bit-bar;  $4\frac{7}{8}$ . No. 121, ditto, flat, horse-pattern. No. 122, ditto, in fine preservation; has one large decorated rein-staple, with leather remaining.

SHELF II., Tray OOO, contains twenty-five articles, consisting of bridle-bits, saddle-pommels, horse-trappings, and harness-decorations; numbered from 123 to 151. No. 123, a peculiar form of bridle-bit, with large conical projections, short cheek-piece, one long staple remaining. No. 124, imperfect; dragon-pattern, one staple. No. 125, perfect; same pattern as 109 and 116; two staples. 126, a new form of dragon-pattern; highly decorated, gilt; narrow between cheek-pieces; one staple. Nos. 127 and 128, fragments of dragon cheek-pieces. No. 129, complete; much corroded; two staples. No. 130, imperfect; horse-pattern. No. 131, perfect; dragon; one staple; 43. No. 132, horse-pattern; figured and described at p. 608. No. 133, a three-pronged article, apparently part of a bridle-bit. No. 134, a straight decorated side-piece, comparatively modern; two staples; 5\frac{1}{5}. No. 135, ditto, smaller. No. 136, fragment of bit. No. 137, of peculiarly bright-yellow bronze, like that used in some of the culinary vessels, consists of a circle, with two curved arms, and two slight staples; it was probably part of a bridle-bit, or a fragment of harness; found in the river near Robe Abbey, Ballinrobe, county of Mayo, and—Presented by the Board of Works. No. 138, one side of a cheek-piece. No. 139, half of a peculiarly shaped bit, with double saw-edge; probably used in No. 140, ditto, but not the corresponding half; edges smaller and wider, with stay between. No. 141, a decorated piece of antique harness, imperfect; looks like portion of bridle-bit. No. 142, a portion of harness, consisting of a ring, and two decorated staples. Found with No. 143, the chariot boss and trace figured and

described at p. 611. Nos. 144 to 147 are four iron rings, covered with plates of bronze, each  $2\frac{1}{2}$  wide across, with tangs on one side, in the figure of a jew's-harp; evidently chariot-staples; No. 146 was gilt; all were found with No. 143, described at p. 573. Nos. 148 to 151 are four bronze saddle-pommels, the largest of which, No. 149, is figured and described at p. 602; in length they vary from  $1\frac{7}{8}$  to  $2\frac{1}{8}$  inches.

SHELF I., Tray PPP, contains eleven bridle-pendants; numbered from 152 to 162. No. 152, perfect; much worn; loops at end; slight remains of ribbed ornament on surface; 114 inches long, by 2 in the clear, across the boss.—Presented by Dr. Kelly.— See Proc., vol. vi., p. 528. No. 153, ditto; loops much worn, and decorated externally with embossed circles, terminal enlargement plain; 11 by 5\frac{3}{2}; found near Castlerea, and, with No. 169—Presented by T. G. Wills Sandford, Esq.—See Proc., vol. vii., p. 161. No. 154, very slender; imperfect on one side; ribbed extremities; loop at right angle with arm of bow, which rises high above it; 11 by 4. No. 155, slender, wide, loops worn through, and decorated with sunken ornament on outside, stem beautifully ornamented, and socketed, possibly to hold a plume; 11 by 6; found in the old abbey ground of Emly (Imleach Brocadha, so called from St. Brocadius, a disciple of St. Patrick), near Castlerea, county Roscommon.—Presented by W. R. Wilde, Esq.—See Proc., vol. vii., p. 19. No. 156, slender, short, imperfect; spoon-shaped termination to prong; 11\frac{1}{2}. No. 157, a twisted fragment. No. 158, a fine specimen, but wants one arm; decorated on prong and stem; 13½.—See Fig. 520, p. 610. Nos. 159, 160, and 161, are fragments; the first and last were—Presented by the Shannon Commissioners. No. 162, long, narrow, wants one prong, knob large, loop angular.

Tray QQQ contains seven perfect pendants, broad in the bow; numbered from 163 to 169. No. 163, large, broad, not much worn; 13 by 5\frac{3}{2}; found, with sword, No. 104, and spear-heads, Nos. 64 and 235, in the River Boyne, and—Presented by the Board of Works.

—See p. 477. No. 164, slender, narrow, almond-shaped extremities; loops angular; 13 by 4\frac{1}{8}. No. 165, slender, globular knobs, with angular loops; 12 by 5\frac{1}{4}. No. 166, one of the largest and most perfect specimens in the Collection; loops at end, highly decorated, with Celtic ornament on knob and ends of bow; 14\frac{3}{8} by 6\frac{7}{8}.

—Deposited, with No. 167, by Royal Dublin Society. No. 167, ditto,

but differs in ornamentation at end of knobs and bow, where it is sunken for insertion of enamel; loops angular; 14 by 6. No. 168, ditto, terminations larger; 11 by  $4\frac{3}{4}$ . No. 169, with angular loops, has a plain oval knob, and spoon-shaped terminations;  $10\frac{1}{2}$  by  $5\frac{3}{4}$ ,

Tray RRR contains eight pendants, numbered from 170 to 177. No. 170, unfinished, possibly never used; a portion of metal slag remains at end of knob; loops angular; 12 by 3 . No. 171, a very perfect massive specimen, figured on p. 609. No. 172, imperfect, slender; modern mending on bow; loops angular; 11\frac{1}{12} by 3\frac{1}{2}. No. 173, long, narrow, unfinished; large rough decoration on top; mended in two places; differs from all others, in having loops placed at right angles with the sides, and not the inner margin of the hollow knob; 12½ by 5½; legs unsymmetrical. No. 174, perfect, except hole in prong; loops angular;  $13\frac{1}{2}$  by  $3\frac{1}{4}$  (Dawson). No. 175, perfect; large, slender; loops angular; almond-shaped terminations; that on stem split by a modern dealer for the insertion of an iron spur-rowel, which is now placed above it (see p. 611);  $12\frac{1}{2}$  by  $6\frac{1}{4}$ . No. 176, short, broad, with open-work ornament at extremities; loops angular; one leg ? inch longer than the other; 11½ by 7. No. 177, with quatrefoil ornaments, like pin 279, Tray WW. It is figured at p. 609.

SHELF III., Tray SSS, contains nineteen harness-studs, numbered in continuation of the pendants, from 178 to 196. No. 178, a ring, with two decorated staples. No. 179, a decorated ring, worn into a triangular form internally. No. 180, a britching-ring, No. 181, ditto, decorated. with three staples. No. 182, a different form, quadrangular; three staples holding portions of leather. No. 183, a very light and elegant harness-stud, consisting of four rings joined together with slender staples; looks like a toy. No. 184, a ring, with two star-like staples, highly decorated; leather remaining; measures 41. No. 185, a harness-ring, decorated upon both sides and top. No. 186, a ring, with three conical projections on upper surface, to limit play of staples, which No. 187, a ring with four staples, plain. No. 188, a peculiarly-formed britching-plate, like three rings joined together; staples broad and quadrangular. No. 189, a britching-ring with three decorated star-like staples. No. 190, a triangular article, like centre-piece of No. 188. No. 191, plain ring, with one staple. No. 192, a decorated ring, triangular internally. No. 193, a toy-like ring, with three staples. No. 194, figured at p. 612. No. 195, ditto, plain; comparatively modern. No. 196, a britching-ring, with three staples, differing from all others in breadth, and still retaining pieces of buff leather.

Tray TTT contains a collection of forty-two bronze bosses, rosettes, &c., either personal, or for horse-trapping; many of them comparatively modern; numbered from No. 197 to 238. The first seventeen are circular. Nos. 197 and 198 would appear to have been saddle-terrets; all those after No. 213 are highly ornamented; many with open-work, and are good specimens of casting. A few may have been personal ornaments (see Nos. 237 to end). No. 203 was procured from Lisnafunshin, barony of Fassadinin, county of Kilkenny. Nos. 206 and 213 were—Presented by Lord Farnham, and No. 236—by Mr. G. Boulger.

Tray UUU contains forty-four globular or pear-shaped cattlebells and crotals, numbered from 239 to 282. The first article is a collection of thirteen small, tinkling, globular, perforated bells, attached to a zigzag wire-hoop, each bell about 3 inch in diameter, of very thin metal, and having shot inside; they resemble those now attached to toys, or to the fools'-bauble in ancient times; found in sinking a foundation at St. Patrick's Cathedral, Dublin, and—Presented by His Grace the Duke of Northumberland. Adjoining these is a string of fifteen globular bells of the same size; they emit a much duller sound; apertures, placed near the staples, which differ from those in the former set by being cast. After these follow 5 globular bells of a larger size, and decorated. The eight on the second row, numbered from 272 to 279, are larger than either of the foregoing, and vary in diameter from  $2\frac{1}{2}$  to  $2\frac{3}{4}$  inch. Each has a slit connecting the lower apertures, and also holes in the upper segment beside the staple, and they emit very musical sounds. In No 277, part of the clay-core still remains. Several of thes: globular cattle-bells are pleasingly decorated on the lower hemispheres; six have the initials "R. W.," and one "C. O.," embossed below. This latter, No. 279, is figured on p. 612. The three last articles are pear-shaped crotals, obtained from the "Dowris Find," and of which No. 282 is figured on p. 612. They were presented by Lord Oxmantown to the late Dean Dawson, with whose collection they came into the

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Academy's Museum. In size they average  $6\frac{1}{2}$  inches long, by about  $2\frac{3}{4}$  in the widest portion. At page 519, for Tray **UUU**, see Tray **VVV**, page 638.

SPECIES VII. - MUSIC AND MUSICAL INSTRUMENTS.

The principal ancient Irish musical instruments whereof we have any historic record, or of which the remains have come down to the present time were, the harp—already described and figured at page 286; the trumpet, mentioned below; and the bag-pipe, inflated by the mouth, like that still common in Scotland, and of which there are figures in Derricke's book of 1578, already referred to at page 322, but the materials of which were of too perishable a nature for preservation. There are sixteen specimens of trumpets in the Academy's Collection, arranged in the third compartment on the northern side of the ground-floor of the Museum.

TRUMPETS (in Irish, corn, stoc, or stuic).—The earliest Anglo-Irish notice of this instrument is that by Sir Thomas Molyneux, in his "Discourse concerning the Danish Mounds, Forts, and Towers of Ireland," 1725; but in his day it was the fashion to attribute everything valuable or curious in Ireland to the Ostmen. This opinion appears in a great measure to have arisen from the study of Olaus Wormius' treatise on the antiquities of Denmark, published in 1655; in which work may be found notices of many primeval monuments, analogous to those in Ireland; but which were as much antiquities, and as little understood by the Northmen who invaded Ireland in the ninth century, as similar structures here were to the Irish of that period; both were the works of many centuries previous, and possibly of a people identical in origin,—the first wave of population which overspread north-western Europe. Since the time of Molyneux, the term "Danish Forts" has been popularly applied to all our military raths, and many of the sepulchral mounds. The short sidemouthed trumpet, figured and described by that author, having been, with several others, "found buried in the earth,"

in a mound near Carrickfergus, was henceforth called Danish, although such articles are peculiar to Ireland, and unknown in any part of Scandinavia.

In 1750, thirteen or fourteen curved bronze horns were discovered between Cork and Mallow, and three of them were figured by Charles Smith, in his History of the County of Cork. Three of these trumpets passed into the possession of Bishop Pococke, the distinguished traveller, and Irish antiquary, with whose collection they were subsequently sold in London, and were figured in the Vetusta Monumenta, by the Society of Antiquaries. There is every reason to believe that they were the identical articles described by Smith; and they were afterwards copied by J. C. Walker, in the Appendix to his "Historical Memoirs of the Irish Bards," 1786. One of these resembles No. 12 in our Museum (see Figs. 526 and 529), with a lateral aperture or mouth-hole; the other two were simple curved horns, like Fig. 524; but with these were found pieces of straight tubing, like that represented by Ousley, and which were then believed to have formed parts of these trumpets. It does not, however, follow that they were portions of, or in any way attached to, the horns with which they were discovered; and if (as we believe) they were portions of a "Commander's Staff," as stated at page 492 (see Fig. 360), it was not an unlikely place for such articles to be found, where the commander of a battalion had also his speaking-trumpet, as well as his trumpeters beside him, when he fell in battle. That a curved trumpet, attached to each end of a straight tube, four feet long, could not be of any use known or conjectured in the present day, is manifest. The subject, however, requires further illustration. It is worthy of note, that, in nearly every instance, several trumpets, and generally including two varieties, have been found together.

In 1783, Vallancey figured a side-aperture trumpet, from a specimen in the Museum of Trinity College; and to his description appended some conjectures as to its use in sounding

from the tops of round towers, &c.\* Vallancey's plate of the horn referred to was inserted in Gough's Camden, in 1789.

Three trumpets, and a portion of straight tube (possibly that figured at page 492), precisely similar to those described by Smith, were discovered in the county of Limerick in 1787, and were figured by Ralph Ousley, in Vol. II. of the Transactions. In 1794 four brazen trumpets were found in a bog on the borders of Lough-na-shade, near Armagh. One of these, figured by Stuart, in his History of Armagh, is the large riveted trumpet with a decorated disk, and central globular connecting portion, now No. 8, Fig. 527, in the Academy's Collection, and which is joined with rivets; whereas all those previously noticed were cast. In 1809 both joints of a very large and perfect curved bronze trumpet, or bugle-horn, were found in peat at Ardbrin, parish of Anaghclone, county of Down, and were minutely described by Mr. Bell, in the Newry Magazine, for 1815.† This fine specimen is also in the Museum: see No. 9 Fig. 528.

\* "The Irish," said Vallancey, "had various kinds of trumpets, viz., the stoc, bushall, beann, adharc, dudag, corna, gall-trumpa." The same terms were adopted by his followers, Ledwich and Walker, the former of whom adds six other names to the list of Irish wind instruments; but none of these writers give any authority for such words.

I am indebted to Mr. Curry, who has already furnished all the Irish names used in this Catalogue, for the following note on ancient musical instruments:—"Cruit, a harp; Timpan, a drum or tambourine; Corn, a trumpet; Stoc, a clarion; Pipai, the pipes; Fidil, a fiddle. All these are mentioned in an ancient poem in the Book of Leinster, a MS. of about the year 1150, now in the Library of Trinity College; and the first four are found in various old tales and descriptions of battles. I have not found any reference as to the particular form of these instruments, and never met any allusion to a speaking-trumpet."

Giraldus Cambrensis, in his Itinerary of Wales, describes the brazen horn of St. Patrick, to which miraculous powers were attributed.

† In the four volumes of that well-conducted publication will be found many valuable articles on Irish antiquities, from the pen of Mr. Bell, now of Dungannon, one of the earliest pioneers of that subject in the present century. The bog where the trumpet referred to above was discovered had been a lake about the middle of the last century. In 1815, a stratum of burned oak was found in it, and a boat scooped out of a single tree, together with four short paddles;—so that possibly it was the site of a crannoge.

In 1833, Dr. Petrie, in an article on Irish trumpets, published in the Dublin Penny Journal, Vol. II., figured a cast bronze horn, one of several found at Dowris, and which was then in the possession of the Dean of St. Patrick's; it is now No. 11 in the Academy's Collection.

In 1835, several trumpets were discovered in a bog near Killarney, some of which were subsequently in the possession of Lord Londesborough and the late Crofton Croker; and some are still in the collections of Mr. Windele, and other persons at Cork.

In 1847, three trumpets were discovered near Cloghoughter Castle, county of Cavan, and were—Presented to the Museum by Lord Farnham.—See Nos. 6, 14, and 15. Several others, the particulars of which are not known, came into the possession of Dean Dawson, with whose collection they were purchased by the Academy.

In 1840, four trumpets were discovered in the bog of Drumabest, parish of Kilraughts, county of Antrim, two of which were sold to the British Museum, by the late Mr. Carruthers, of Belfast. The two others remain in Ballymoney, and have been figured by Mr. M'Adam, the last writer on the subject, in his learned article in the Ulster Journal of Archæology for January, 1860. Of these four, two belong to the variety with lateral apertures; and the others were of a rare description, of which we have no example in the Museum of the Academy. That figured by Mr. M'Adam is 35 inches long, and has a double curve, the small upper portion turning backwards; it was blown from the end, and is provided with a staple and suspending ring.

These notices, together with the details given in the Catalogue of trumpets at page 633, include nearly all that is known on the subject of such articles found in Ireland, of which there are some fine examples in the British Museum. From the foregoing and following remarks, it would appear that five distinct varieties of trumpets have been found at different times in this country.

The bronze horns and trumpets now in the Collection are of two kinds—those blown from the ends, but the mouthpieces of which (if such there were), are not forthcoming, and of these there are three varieties—two cast, and one riveted; and the cast trumpets with lateral embrasures, and closed at the small extremities. The most remarkable specimens of all these are represented in the following illustration. The first cut, to the right of the central top specimen, is a short, cast, curved horn, No. 2, which measures 24 inches along the convex margin; it is 31 wide in the great, and 15 in the small end, and has a set of large conical projections standing out from either end, and decorated round their bases. There are also four holes in each end, and the small aperture is slightly everted, as if for holding the lips; but it requires a great exertion to produce even a dull sound with this in-There are four perfect specimens of this variety strument. in the Collection, all of which are cast. One of these, No. 1, is a beautiful example of brilliant, golden-red bronze, and was found at Dowris. The largest perfect specimen is 15, and the smallest 10½ inches, measured from point to point. Another variety of this trumpet is figured on page 629.

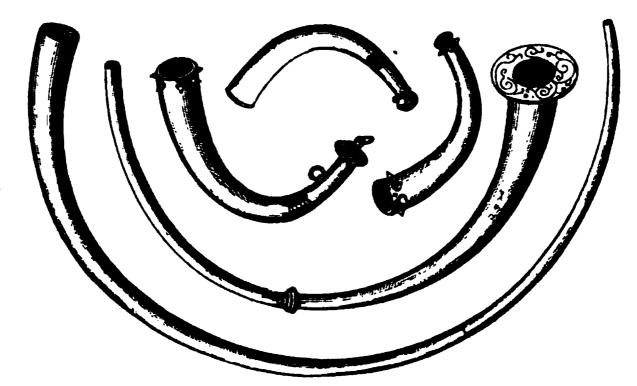


Fig. 524. No. 2. Fig. 525, No. 11. Fig. 526. No. 12. Fig. 527. No. 8. Fig. 528. No. 9.

The top central figure, and that immediately beneath it, to the left, Nos. 11 and 12, are specimens of the third variety,

all of which have been arranged in the end case adjoining the door of the Library, and are numbered from 10 to 16. Like the former, each was cast in one piece, but closed, generally by a knob at the small end, and furnished with one or two loops and rings at or near that point. Some have conical spikes round the larger ends, like those of the first variety, and evidently belonging to the same class of decoration seen in some of the brazen cauldrons figured on page 530. About the junction of the middle and upper thirds, and towards the inner side, when the instrument is held with its large end turned to the left shoulder, each has a smooth oval aperture, averaging 2 inches long, and 1½ wide. It is not possible, by any yet discovered method of applying the lips to this mouth-hole, to produce a musical sound; but, as conjectured by Walker in 1786, these instruments might have been used as speaking-trumpets, to convey the voice to a great distance, as well as render it much louder. Mr. M'Adam, in his recently published paper on Irish trumpets, adopts this opinion, but applies it too generally to all our native instruments.

Trumpets of this description might have been useful to commanders in the warfare of former days, when the chief battle-sounds were the shouts of the combatants, the clash of arms, or the groans of the wounded. Of the foregoing illustrations, No. 11 is perfectly plain, and measures 24 inches along the convex margin, and 2½ in its greatest width, with a circular termination at the small end, and a narrow ring-loop Ridges, like those left from the imperfect adjustment of the moulds—but probably part of the original design of the founder—pass along both the concave and convex It appears to have been broken across near the centre, and afterwards repaired, probably by the process called burning in, or-"pouring melting metal at a glowing temperature upon the junction of two [heated] pieces, and by that means fusing the entire into one mass."—See Proceedings, vol. iv., p. 428; see also the method of mending bronze

swords, described at page 456 of this work. This trumpet, which formed a portion of the "Dowris Find," and was procured with the Dawson collection, has been figured in the Dublin Penny Journal. No. 12 is one of the finest specimens which as yet has been discovered; of bright yellow metal, measuring 34½ inches round the convex side, and 3½ in width at the large opening; above, it terminates in a decorated head, 2½ inches in diameter and furnished with a large ring. There is another ring near the upper end of the concave side. It was broken across at the mouth-hole, and most ingeniously mended by pouring melted metal round the fracture, when probably the ends were heated by the method

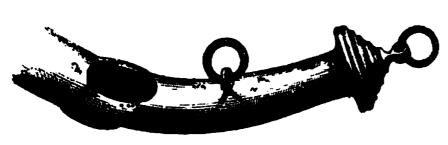


Fig. 529, No. 12.

already explained. The additional metal has also been fused round the inner surface. Its lower edge is decorated with

conical spikes. Figure 529 shows the details, already described, of the upper portion of this trumpet. It was found near Derrynane, county Kerry, and obtained through the instrumentality of Mr. Du Noyer.

Of the first variety, like Fig. 524, described at page 629, and in which the aperture is at the end, there are two remarkably shaped instruments in the Collection, Nos. 5 and 6, in which the curves are different, and the small extremities appear to have been fitted either to mouth-pieces or to other joints. Each

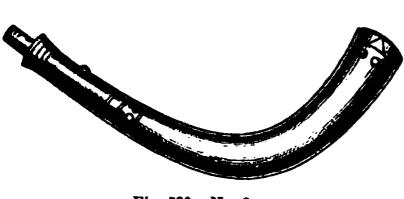


Fig. 530. No. 6.

is cast in one piece, of dark metal, and strengthened on both edges by lateral projections still larger than those on No. 10. No. 6, Fig. 530, is decorated at both ex-

tremities, and in the centre of the straight portion, near the top of which there is a small ring-loop; the jointing part, be-

neath the decorated shoulder, is 1½ inch long. It measures 22½ inches on the convex edge, is 2½ wide at the mouth, and ¼ at the small end. It was found with Nos. 15 and 16, at Cornaconway, near Cloghoughter Castle, county Cavan, and—Presented by Lord Farnham. No. 7, perfect, heavy, and a little larger, is of precisely the same shape, and was found at Roscrea.

The third variety is represented by the two large trumpets of the bugle-horn shape, Figures 527 and 528, in the illustration at page 627. Each of these consists of two portions, but no mouth-pieces were discovered with them. The first would appear to be that found in the county Armagh, in 1794, and figured by Stewart; and the second, now the lowest specimen in the illustration is that discovered in the county Down, and described by Mr. Bell. The peculiarity of these trumpets is their great length, and the ingenious mode by which each is joined along the concave side by a series of minute rivets fastened to a strap of metal, which runs the entire length of the inside in No. 9, and partially on both sides in Nos. 7 and 8.

The trumpet No. 8 is composed of two portions—the large lower conical part, with a decorated disk below, and a circular boss at top, to connect it with the slender upper part, the sides of which are nearly parallel; both together measuring, on the convex margin, about six feet—not cast, but formed of very thin, sheet bronze, closed by seams along the concave edge, in the following ingenious manner:—A strip of thin metal, half an inch wide, extends along the seam internally, and is united to each side by a series of nail-headed studs, in alternate spaces, with  $\frac{7}{8}$  inch between; externally another strap, doubled on itself in the centre, evidently to strengthen it, runs over the seam, and is fastened by a series of small well-formed rivets, placed at regular distances, and passing through the three plates of metal. By this contrivance, which must have preceded the knowledge of junction by soldering, the

instrument was rendered perfectly air-tight. The cast boss at top is about 3 inches wide, and was fistened by interlapping with the tube. This lower part of No. 8 was evidently long in use, and has been most ingeniously patched and mended in several places by riveted plates and collars. The narrow upper tube is in two portions, passing, at the junction, into each other, but manifestly part of the same instrument; their seams are joined by the same plan of riveting as that described above, but in a ruder way.\* The decorated disk below, the details of

the punched or hammeredup ornament on which are
shown in the accompanying illustration, measures
7½ inches across. Its style
of decoration much resembles that of the large
shield-like plates on Tray
vvv, and represented by
Fig. 533, page 637. Its
present mode of attachment to the trumpetmouth is evidently modern.

Fig. 581 No. 8.

The great trumpet in this Collection is No. 9, represented by Fig. 528, in the illustration on page 627, certainly the finest article of the kind which has yet been discovered in Europe; it was found in the Co. Down, in 1809. It measures 8 feet 5 inches along the convex margin, and consists of two portions, each formed of very strong sheet bronze, of a yellowish-red colour, and joined along the seam by means of a riveted plate; but far surpassing, in ingenuity and handicraft, any of the foregoing articles of this description. It is 3½ inches

<sup>\*</sup> The Scandinavian trumpets, of which there are six perfect specimens in the Museum at openhagen, were all cost in separate lengths, and resemble in size No. 8 in R. I. A. By means of a "wind" in each of the two perfect articles in that collection, the lower portion presented in front of the performer, while the small end passed round his neck.

wide at the open of the large end, and § at the upper; the smaller tube has parallel sides, and is about the size of the small extremity of the larger; but by what means the two were joined, or whether a mouth-piece was attached to the small extremity, is unknown. The riveting of the edges in this instrument is the most perfect thing of its kind yet discovered, and is well exhibited in the accompanying cut, drawn, the natural size, from portions of its external and internal surfaces. The bronze strap which covers the joining on theinside is studded with small, circular-headed studs, ri-

veted on the outside, as shown in the lower section of this cut. There is no strap externally; and the perfection of the riveting has long been a subject of admiration to the curious, there being as many as 638 rivets in this lower portion. By what means they were introduced throughout, or what description of mandril was employed for riveting them upon, is still a subject of speculation. A great variety of loud, martial tones, can be produced by the lower



Fig. 582. No. 9.

fragment of this trumpet; but the want of a mouth-piece renders it difficult to play upon. This is the instrument discovered in the County Down, and described by Mr. Bell, see page 625.

Diodorus Siculus, writing of the Celtic Gauls, states—
"they have amongst them trumpets peculiar as well to themselves as to other nations; these, by inflation, emit an hoarse
sound, well suited to the din of battle." And Polybius says that
"the parade and tumult of the army of the Celts terrified the
Romans; for there was amongst them an infinite number of
horns and trumpets, which, with the shouts of the whole army
in concert, made a clamour so terrible and loud, that every
surrounding echo was awakened, and all the adjacent country
seemed to join in the horrible din."

Bronze VII.—Third Compariment; Northern Ground-Floor.

The sixteen bronze trumpets have been arranged in the top space of the third Compartment, and are numbered from 1 to 16. No. 1, a very perfect horn, of bright gold-coloured bronze, referred to at p. 627, decorated at both extremities, with conical projections, four above, and six below; measures 21 inches round the convex margin; is  $3\frac{1}{2}$  across the open of the large extremity, and  $1\frac{3}{4}$  wide in the slightly-everted small end; found at Dowris, near Parsonstown, King's County, and presented, together with No. 11, by Lord Oxmantown, to the late Dean Dawson, with whose collection they came into the Academy.—See Proc., vol. iv., p. 423. No. 2, ditto, fractured in centre; figured and described at p. 627. No. 3, a short trumpet, perfect; open at the small end; thin, cast; 24 inches round convex margin; 33 across large, and 13 wide at small extremity; with six conical projections below, and four at top, together with four rivetholes at that end. There are a number of small holes throughout the instrument, either from corrosion, or through defect in casting; and it has been mended by pouring in fresh metal, in three places, on the greater curvature towards the large end. No. 4, ditto, imperfect, of very thin bronze, much worn and battered; conical studs at large end, similar to those in foregoing. Nos. 5 and 6 are of a different variety, elongated in small extremity, and almost identical in shape. No. 5 is cast; heavy; very slightly decorated; without rivet holes at either extremity. It measures 23% inches round convex edge;  $2\frac{1}{4}$  across; large; and  $\frac{7}{8}$  at the small extremity, which is 17 in length, from the raised shoulder; ring-loop on upper portion of concave edge; found at Roscrea (Sirr.). No. 6, ditto, thinner. slightly imperfect on one side; figured and described at p. 629. No. 7, a thin bronze tube; 34 inches long, and  $1\frac{1}{8}$  in diameter, with circular ferule; bosses at the extremities; manifestly a portion of a bronze trumpet, in the highest perfection; riveted along the concave margin to a strap of thin metal, one-half inch wide, the rivets about one-half inch asunder, with the head inside, not placed in pairs, but obliquely as regards each other, as in the spear-ferule figured and described at page 504. Although these rivet-heads are flat near the extremities of this tube, they become prominent, and irregular towards the interior. The joining of the sides is most

accurate, and the article is perfectly air-tight, but, owing to its parallel sides, does not produce any musical sound. The ferule-bosses, each about  $2\frac{1}{3}$  inches in diameter, were evidently fixed in their present positions by interlapping at the upper margins of the extremities of the tube, as in modern tin-work. This article evidently formed a portion of a trumpet similar to the following. No. 8, the large thin trumpet described as Figs. 527 and 531, at pp. 627 and 631; composed of two portions, the upper and smaller one also consisting of two parts, one inserted within the other. No. 9, the large perfect trumpet, in two portions, delineated by Figs. 528 and 532, and described at p. 631.

The following trumpets have lateral apertures. No. 10, slightly imperfect at small end, including a portion of the mouth-hole, which is 30 inches from the large end. The decorated studs around the lower opening resemble those in No. 2. It was found near Macroom, Co. Cork, and was given by John Lindsay, Esq., to Dean Dawson. No. 11, described at p. 627, see Fig. 525. No. 12, large bronze trumpet, with lateral aperture, described at p. 629, see Figs. 526 and 529. No. 13, upper and lower fragments of a trumpet of the same variety, of very brittle metal; 2 wide; ridge on concave, and convex edges, like the result of a mis-adjustment of moulds, but evidently intended to add strength to the article; extremity surrounded by twelve small studs, now enveloped in a coating of additional metal, poured around them, when in a fluid state, to repair some deficiency in the margin; this addition passes over both sides of the fractured ends, for about  $1\frac{1}{4}$  inch. The new edge is decorated with a raised torque-pattern. This artistic mode of perfecting the open of the instrument, which is 23 in diameter, shows how necessary the completion of that part was to the perfection of the instrument, and is also a most curious instance of repair in ancient bronze. The upper fragment is of the same description, with flanges on both curvatures; ring-loop; mouth-hole small, and thick round margin. It was found with Nos. 6 and 14, at Corraconway, county Cavan, and—Presented by Lord Farnham.—See p. 626; see, also, Proc., vol. iii., p. 530. No. 14, fragment of the large extremity of a trumpet, so like the foregoing, as to appear to have been cast in the same mould. There is, however, a slight difference in the ornamental stude around the opening; found with the foregoing.

15, ditto, imperfect, ring-loop near small mouth-hole (Dawson). No. 16, ditto, with two loops—one at top, the other on the side, similar to No. 12, the extremity contains a quantity of fine drab-coloured sand, possibly the remains of the casting-core.

For the remains of harps, see Rail-case P, page 599.

SPECIES VIII. - MONEY, COINS, AND OTHER MEANS OF BARTER.

At the period of the Roman invasion of Gaul and Britain, Cæsar informs us that the inhabitants of those countries "used for money gold and iron rings of certain weight;" but says nothing of bronze or silver. Vallancey, writing in 1783, adopts this passage, and applies it to the elucidation of the use of a double bronze ring found in Ireland, like that represented by Fig. 452, page 578, of this work; but which, and all similar articles, of which there are a great many in the Collection, have since been proved to be fragments of ring-chains. Betham enlarged upon this idea of the author of the Collectanea (but without acknowledgment); and, in two papers, read to the Academy in June, 1836, and January, 1837, and printed in Vol. xvII. of the Transactions, figured, and described as ring-money, a large and miscellaneous collection of articles of various shapes, sizes, and weights; but chiefly penannular rings of bronze, gold, and silver.\* The single, double, and triple rings of the former metal, undoubtedly, belonged to chain dress, or armour; and, although some small gold rings (several ancient forgeries of which have been discovered), may have been used as a means of barter, the uses of the other articles figured by that author, are now well established as fibulæ and armillæ. When we reflect on the great number of antique metallic articles to which rings were attached, the

<sup>•</sup> In Sir W. Betham's second paper, alluded to above, he quotes a letter of Mr. Sainthill, of Cork, stating that metal rings were then manufactured at Birmingham and used for trading with people on the coast of Africa; but, adds Mr. S., they "are a composition of brass and copper; they are called manillas, and are worn as ornaments, and pass as the representatives of money." Some were manufactured of iron.

number of these found in Ireland will not appear surprising See the further consideration of this subject in the descrip tion of the articles of gold and silver.

Species. Ix.—Medicine is only represented by one bronze surgical instrument, No. 38, in Rail-case Q. All the bronze articles connected with species x.—Religion—will be considered under the head of ecclesiastical antiquities; and there are no representatives of species xi.—Sepulture—among the metallic articles of any description in the Collection.

### SPECIES XII.-MISCELLANEOUS.

The true eclectic method of investigating the remains of the past—our increased knowledge of the contents of the museums of other countries, and a rational comparison of the relics of our ancestors with articles in use in the present day, together with a common-sense view of antiquities generally —has left very few articles the use of which may not be fairly assigned, or plausibly conjectured. Still, if the house of a wealthy citizen of the present time were, with all its contents, to be sunk beneath the earth's surface, and dug up one thousand, or five hundred years hence, the antiquary of that day would find some articles, the precise objects of which could not be determined with sufficient certainty to warrant their being grouped with any of the species described in the classification adopted in such a Catalogue as this. The most notable collection of articles, the object of which has as yet puzzled antiquaries, is the set of six bronze disks, arranged on Tray vvv, in the third compartment of the northern ground-floor, and of which the accompanying illustration is a good example. It is drawn from two imperfect specimens, Nos. 1 and 5; the line a, b, marking the division in the restored drawing. They average 11 inches in diameter, and are slightly dished, or hollowed, with nearly central cups or de-As already stated, the general design of the ornament is that of a series of horns or trumpets, with their bases

approaching each other; together with crescentic and spiral decorations. Each of these plates is hammered out of a tolerably thick piece of metal; and, as some of them are in an unfinished state, they afford the means of examining into the process of their manufacture. Although the general characters are the same in all, each differs slightly in detail. The pattern was

#### Pig. 888. Nos. 1 and 5.

first marked out by a rounded elevation on a concave surface, punched or hammered-up from the reverse side; and in this state two of these bosses still remain. Then, by a continuation of the process in front, and possibly working on a block of pitch, or other yielding substance, these raised portions were rendered as thin as writing paper, and the whole embossment was made to assume externally a polished surface, and a sharpness of outline that is truly marvellous. Finally, the extreme edge was formed into a distinct line of the most exquisite finish, as is well seen in the intersecting curves in the lower section of the foregoing illustration. On the subject of the

spiral form of Irish ornament, the late John Kemble, in his eloquent address to the Academy in 1857, justly said:—

"There is a peculiar development of the double spiral line, totally unknown to the Greeks, the Etruscans, and the nations of the Teutonic North, which is essentially characteteristic, not only of the Scoto-Keltic, but the Britanno-Keltic populations of these islands. If the lines are allowed to diverge, instead of following one another closely in their windings, they produce that remarkable pattern which, since a few years we have been in the habit of calling the trumpet-pattern, and which, from one of its peculiarities, is sometimes called the thumb pattern. When this is represented in a plane surface, in the illuminations of MSS., you have that marvellously beautiful result which is familiar to you in the 'Book of Kells;' to us in the 'Book of St. Cuthbert,' or 'The Durham Book,' in the British Museum; and in the equally beautiful records of Scoto-Keltic [Irish] self-devotion and culture in the MSS. of St. Gall, in Switzerland. When, as is often the case in metal, this principle of the diverging spiral line is carried out in repousseé—when you have those singularly beautiful curves—more beautiful, perhaps, in the parts that are not seen than in those that meet the eye—whose beauty, revealed in shadow more than in form—you have a peculiar characteristic—a form of beauty which belongs to no nation but our own, and to no portion of our nation but the Keltic portion. The trumpet-pattern is neither Greek, nor Roman, nor Ori-There is nothing like it in Etruscan art; there is ental. nothing like it in German or Slavonic art; there is little like it in Gallic or Helvetian art: it is indigenous." See Proceedings, vol. v., p. 475; see likewise Dr. F. Keller's illuminations and fac-similes from Irish MS. in Switzerland; translated in the Ulster Journal of Archæology, vol. viii., p. 224.

Respecting the uses of these articles—which have as yet been found only in Ireland—we are still in the dark; the most probable conjecture is, that they were portions of shields.

Among the other miscellaneous articles, illustrative of native art, may be specified the following:-

Figure 534 is drawn one-half the natural size from No. 17, a bronze figure, which serves to illustrate the subject of costume, described This article resembles the figures at page 259.

represented on page 320; and probably formed a decoration on some flat metallic surface.

Figure 535, drawn the true size, from No. 24, in Rail-case P, represents two portions of a thin curved strap of cast bronze, 81 inches long, and highly decorated all over the external surface. It was found in the Shannon, near Athlone, and—Pre-



Fig. 534, No. 17. sented by the Shannon Commissioners. Fig. 536, No. 24.

The concluding cut, Fig. 536, shows the interlaced strap-

work on a hollow bronze sheath or ferule, No. 8 in Rail-case P, shaped some-



Fig. 530. No. 8.

what like a crocodile's head. It is 4 inches long, and is partially open underneath: see page 640.

Tray **VVV** contains six bronze embossed plates, three of which are quite perfect. No. 1, incomplete, but forming, with No. 5, Fig. 533, on p. 637; 11 inches wide; the workmanship very imperfect. No. 2, complete, dished; 11 in diameter; apparently in process of manufacture, the edges of the elevated portions being round, except in one of the decorations towards the lower margin, where it has been worked out into a sharp, well-defined pattern. No. 3, ditto, flat, unfinished, except in one small ornament near the top; small, and probably modern, oval aperture in central depression; stout everted rim; found, with No. 4, at Monasterevan, Co. Kildare (Sirr), No. 4, imperfect in some places, unfinished; 11 No. 5, imperfect towards lower edge, but the most highly finished specimen in the Collection, forming, with No. 1, the illustration at p. 637; central depression deep, with raised curved margin; diameter, 10 inches. No. 6, fragment of the right side of a boss, like No. 1.

Rail-case P, continued from p. 599, Miscellaneous articles.— No. 7, a curious article, like a crocodile's head; hollow, raised cast ornament, triangular projections at end; 45. No. 8, ditto, figured at p. 639. No. 9, rude hollow model of a sheep; 23. No. 10, ditto, hollow; a good representation of the ancient Irish pig; 3\frac{1}{4}. No. 11, ditto, of a boar, fuller, and evidently of an improved breed; 31. No. 12, figure of a frog;  $1\frac{1}{2}$ . No. 13, a solid piece of brass, in shape of a boot; 2\frac{1}{4}. No. 14, ditto; 2\frac{1}{4}. No. 15, a bronze capsule, with three apertures. No. 16, a curious antique figure on flat plate, rude, and showing commencement of art in figure-making; arms akimbo, head attached; plate not cast, but cut, punched, and chiselled; evidently intended to be placed on a flat surface. No. 17, figured and described at p. 639. No. 18, antique figure, like an idol; with a stem beneath, for fixing it on a pedestal; 31. No. 19, antique classic female figure, well draped on both sides, with stud below for pedestal; 2½. No. 20, ditto, a complete statuette. No. 21, modern; a draped figure with Phrygian cap; holding an inverted torch; 3. No. 22, antique figure, probably of Minerva, wellcast and draped, possibly Roman; 31. No. 23, curious grotesque human figure, hollow, of antique bronze; stands on tripod formed of its legs and a projection like a tail—arms crossed in front, as if in the act of nursing; naked, except girdle and close-fitting head-dress; resembles a small lavatory; 47 high. No. 24, a thin, curved plate of bronze, with grotesque head, figured at p. 639. No. 25, a plate of bronze, shaped like a broad cross, edges supported by narrow additional straps; covered with small circular studs, for holding stones; probably the frame-work of a shrine decoration; 51. No. 26, a small hat-shaped boss, like the miniature umbo of a shield; 3. No. 27, a circular disk, corroded; 11. No. 28, a curious almondshaped instrument, hollow, formed of two elongated hemispheres; a loop at one end, a solid stem at the other; 17. No. 29, lower portion of a similar article, with tubular stem; 1\frac{1}{2}. No. 30, possibly top of antique balance; 21 high, with three square projecting sockets; cock's head on top; cleft projections behind.

Rail-case Q.—No. 31, a brass Beggar's badge, circular; 13; marked, "St. Mark's Parish, No. 7;" found in excavating for

foundations at King's Inns-street, Dublin; oval, bas-relief in centre, representing apostles healing the lame man; city arms at top. —Presented by R. Mallett, Esq. No. 32, ditto, marked, "St. Ann's Parish, No. 7." No. 33, circular, plain; 3 wide; marked, Parish of Tidavnet, 1742. For note on Beggars' Badges, see Ulster Journal of Archæology, vol. viii., p. 232. No. 34, a curious badge; 3 wide; bearing a large monogram on surface; originally gilt and enamelled. No. 35, a square messengers' badge, ornamented in relief, with a three-masted ship, and bearing the names "And" Murray and John Tew;" 3\frac{1}{2} by 3\frac{1}{2}. No. 36, an oblong thin plate, coated with tin, and decorated with intersecting lines on reverse side;  $7\frac{1}{2}$  by  $2\frac{7}{8}$ . Externally it had originally two circular bosses, with intermediate plates; one decorated cast boss, 2½ wide, still remains; trumpet-pattern. It appears to have been part of a belt-ornament; and was found at Clonard, county Meath. No. 37, a thin ornamented plate, probably part of a similar article. No. 38, a conical piece of metal, 13; with a stem, 12½ long; apparently a cauterizing implement. No. 39, a large purse-clasp, believed to be part of an almoner's money-bag;  $5\frac{1}{4}$  wide. No. 40, ditto, semicircular; 5\frac{7}{8}. No. 41, bronze bifurcated tube in shape of bird's claw; ornamented; 4; possibly part of a lamp. No. 42, gurgoyleshaped article, with human Egyptian-face decoration, possibly spout of lavatory; 31. No. 43, capsule of thin yellow metal perforated at sides; 1½. No. 44, a rudely cast piece of bronze, resembling the foot of some household article, possibly a lamp; found in the county Longford (Dawson.) The four next articles resemble tops of fire-irons, hollow, and slightly ornamented below. No. 45, covered with antique green patina; 25 high. No. 46, ditto, contains a portion of iron in the socket; antique decoration; found at Keelogue Ford, in 1843.—Presented by Shannon Commissioners. No. 47, short, pale metal, with lead impacted in socket. No. 48, ditto, small; 17. No. 49, a decorated hook; massive; formed to fit a screen-pole; hinged at small ends; sides fastened by a screw at large extremity; 9 inches round convex edge. No. 50, an angular piece of metal. decorated; 73. No. 51, a small screw-like article, beautifully cast, and tastefully decorated; 13. No. 52, ditto, with revolving pendant; originally gilt. No. 53, corkscrew-like article, with pivot; 5. No. 54, a decorated piece of bronze; 4. No. 55, a long piece of bronze,

shaped like a "hanger," bevelled at back; fractured; 15\frac{1}{2}. No. 56, a piece of brass tubing; 7. No. 57, ditto, 6 (Sirr.) No. 58, a penannular tubular collar, with wide flange, open at side; unfinished; 71 in diameter; tube, §. No. 59, piece of brass tube; 7½; found at Clontarf. No. 60, a set of three small tubes, like cartridge-holders joined together; 3\frac{3}{6}. No. 61, a cruciform decorated article, probably a latch; 5\frac{3}{5}. No. 62, a metal strap. No. 63, a well-cast piece of decorated open-work, cruciform; surface covered with small embossed floral patterns;  $5\frac{1}{8}$ . No. 64, ditto, small;  $2\frac{5}{8}$ . No. 65, ditto, 2½. No. 66, a curious decoration, with double bird-head; embossed on surface;  $2\frac{1}{2}$ . No. 67, small piece of bronze; 2. No. 68, cruciform piece of bronze slag; 7. No. 69, a long, slender, Tshaped article, apparently very ancient; 81; covered with thick brown patina. No. 70, a crescentic piece of bronze; 4 wide; wellcast; marked on edge with a decoration, modern, possibly a tool. No. 71, a pendant, like tongue of bell. No. 72, a small shamrockshaped article, like three buttons joined together. No. 73, an oblong plate, well-cast, with "VIVAS IN DEO" in raised letters (Dawson). No. 74, small brass pistol, in one piece;  $6\frac{1}{2}$ . No. 75, croziershaped decorated article, inlaid; horse's head in front; 3. No. 76, small bow, with square sockets;  $1\frac{1}{8}$ . No. 77, spur-strap. Nos. 78, 79, 80, and 81, fragments of metal. No. 82, an ancient book-clasp, beautifully decorated with Irish scroll-work; 3. No. 83, spoonshaped disk; 2½. Nos. 84 and 85, small bronze rods. No. 86, hinged piece of metal; 3.

The subject of House-bells will be considered in another place. In the first Cross-case on the ground-floor, top shelf, No. 87, is a massive bronze mortar-shaped article, with side-handles, and decorated with cog-like elevations;  $3\frac{1}{8}$  high by  $3\frac{1}{4}$  wide; found near Thurles, and—Presented by Henry Grattan, Esq. Nos. 103 and 104, two bronze moulds, in fine preservation, omitted in description of tools at p. 597. The first resembles a button-mould, and has four human faces on one of the stamps. No. 104 is  $2\frac{1}{8}$ , and has eleven stamps.

For the description of the metallic Scandinavian collection, continued from page 153, see conclusion of metallic articles.

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